



User Manual

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Device

Introduction

What is KA Lite?

KA Lite is software that allows users without Internet access to engage with [Khan Academy](#) videos and exercises in completely offline settings, bringing the flipped classroom model to some of the most remote areas in the world. Users can track their progress through videos and exercises, and coaches can log in and check up on their progress to identify which areas the students need the most help in. If KA Lite ever reaches an Internet connection, it can sync this usage data with the KA Lite Hub, an online data repository that allows project administrators to view data and manage accounts remotely of offline deployments.

What are the goals of KA Lite?

KA Lite's goal is to make the high-quality educational resources and tools provided by Khan Academy accessible to the estimated 65% of the world that don't have access to Internet.

How can KA Lite be used?

KA Lite can be used in two main ways:

1. KA Lite can be installed on one local computer which acts as a server, with client devices connecting to this local server to watch the Khan Academy videos, and to work on practice problems. A coach can then check on each student's progress. This method is typically used by schools and other educational institutions.
2. KA Lite itself can be installed on the client device itself, and be used to download Khan Academy videos for offline viewing. In this way, KA Lite is almost like a piece of software that you'd install on your computer, except it runs in the Internet browser.

Who uses KA Lite?

Reaching offline or low-bandwidth communities with KA Lite is a team effort, and we find that a wide variety of people come together to make that happen. In a typical KA Lite deployment, there are 3 types of people involved with the project, which are organized into user types:

1. a **project administrator** plans out the deployment and logistics, procures the devices and installs KA Lite, and oversees their delivery and integration into the classroom or community. They can also update the software, add content, customize configuration settings, and manage user accounts.
2. **coaches** (also referred to as 'facilitators' or 'teachers') are users who add, manage, and track the progress of groups of students. They have access to student progress data in the form of coach reports, and can step in and provide individualized instruction when



the student needs it.

3. **students** are users who use KA Lite primarily for learning. They earn points for watching videos and answering exercises correctly, and their progress is tracked by the system.

How is this guide organized?

This guide assumes that you have already downloaded and installed the KA Lite software on your computer. If you have not yet completed these steps, please see the KA Lite installation guide. From here, the guide is organized by the different “user types” within KA Lite: administrators, coaches, and students. The guide explains the different features that are available for each user and how they can put them to best use.

Administrators

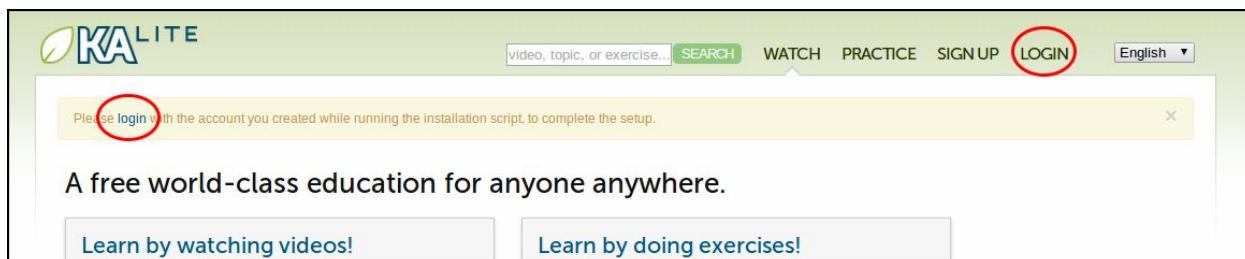
Who is an “administrator”?

A person who :

- helps to plan and oversee a project using KA Lite
- installs and updates KA Lite
- can create coach logins, student logins, download videos and language packs

Setting up KA Lite

Once you have successfully installed KA Lite, the installation script will give you a URL (<http://127.0.0.1:8008/>) to visit so that you can login for the first time. Load up the URL in your browser and login to KA Lite using the username and password you created during the installation process. If you have forgotten this username and password combination, you can simply delete this version of KA Lite (delete the “ka-lite” folder that you downloaded during the installation guide steps for your system and then redo the installation steps in the Install Guide). If it is critical that you are able to login with your credentials, contact us and we can help you manually reset your login information.



Once you've logged in, the next step in the setup process is registering your device with the KA Lite Hub.

Registering Your Device with the Hub

By registering your device with FLE, you can sync data back with our central data hub. This is useful for many reasons:

1. a project administrator can manage user accounts and view usage data from afar, without needing to physically visit the offline device.
2. usage data syncing back can inform the FLE team of multiple users in a certain geographic region, and we can connect people that might be able to help one another
3. it helps FLE and our partners understand where and how the software is being used, so we can keep adding features that support you!

How to register your device

1. Be sure that you have access to the Internet for the registration process.
2. Log in to your installed version of KA Lite
3. Click Register Device link in the top navigation.



4. Once you are on the Register Device page, you will see two options for registering.

What is device registration?

Once you register your installation with us, your data can be synced to our online repository when KA Lite has access to the Internet. This is a good thing! Here's why:

- Your data will be backed up online
- You can login online and review your usage data
- Our team can use this data to objectively assess the impact our work is having around the world!

Ready to register? You have two options:

<p>1-click registration (no online access to data)</p> <p>The perfect option for individual users who just want to get KA Lite up and running fast and don't need online access to data.</p> <p>This allows you to get the registration process over in one-click without worrying about creating a login that you're never going to use.</p> <p>1-click registration now!</p>	<p>Register with online access to data!</p> <p>The perfect option for administrators of larger projects!</p> <p>This option will walk you through the process of creating a login to our website that will allow you access your uploaded data and connect multiple installations to the same account.</p> <p>Register with an online account now!</p>
--	--

click this link to start the registration process with an online account

1-click registration allows you to get up and running with KA Lite fast by skipping creating an online account and registering your device anonymously with our central data hub. The downside to this is that you won't be able to log in online and view your synced data. This option is best for users who are just using KA Lite for personal use, or for users who will never need to login online to view their data.

Online registration, the second option, walks you through the steps of creating a free account on our central data hub, so that you can later login and view your synced data. This option is better for larger and more formal projects so that you can see all of your data in one place, allowing you to share data from multiple devices that are associated with your organization.

If you choose one-click registration, you will be automatically registered with our central data hub, and can proceed to *“Post-Registration Setup”*. If you choose online registration, you can follow along with the instructions below for more information.

For users that choose to register online, there are some important terms to familiarize yourself with so that you understand how the flow of data works between installations and the online data hub.

Important Terms for Project Administrators to Know

Organization

An Organization is a group of people responsible for administering a set of Sharing Networks. An organization can have multiple administrators and manage multiple sharing networks.

Sharing Network

A sharing network is a group of devices that share data between one another.

Facility

A facility is the physical space in which a device is located (e.g. a school or a computer lab in a community center). Student, coach, and admin accounts are associated with a particular facility.

Device

A device should be able to run a KA Lite server (most computers) and other devices to be used as clients. One common configuration is using a [Raspberry Pi](#) or other inexpensive computer as a server and relatively cheap tablets as client devices. Tablets can access the servers through an access point, such as a Wi-Fi dongle, or some other networking device such as a router.

1. After clicking “Register with an online account now!” you will be redirected to the KA Lite Hub website login page. Instead of logging in with your local server account info, click the sign up here link to sign up.



Log in

Please note that this is the central server; you cannot log in here using your local server's account information.

If you do not have an account on the central server, you can [sign up here](#).

Email

Password

[Log in](#)

2. Fill in all the information on the create an account page.
3. Click register to submit the information you have entered, and finish creating an online account.

Create an account

First Name:

Last Name:

Email address:

Organization Name:

[Add details of your organization](#)

Password:

Password (again):

- I acknowledge that the Khan Academy videos and exercises used within KA Lite are for [non-commercial purposes only](#).
- I acknowledge having read the [Khan Academy API terms of service](#), and that KA Lite uses this API.
- Subscribe to our quarterly newsletter, to stay up to date on KA Lite's progress.

[Register →](#)

4. After you click register, you will receive an email with a link to activate your online account.
5. Click the link in the email you received, and a new tab will open up in your browser with a notification that you have successfully created your online account.
6. Log in to the KA Lite Hub with your new online account. From here, you can create organizations and add administrators to those organizations.

My Organization

click to
add a new
organization

Create a new organization

UCSD DEMO

Affiliated Sharing Networks

UCSD DEMO Sharing Network [Manage](#)

Organization Admins

Demo Admin (You are the owner)

Add Admin

example@email.com [Send invite!](#)

create a new sharing network or zone with a set of devices that may connect to share data with each other.

You're ready to [download and install KA Lite](#)

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7. Log out of the online account once you have updated any information related to your organization.
8. Open KA Lite locally, and log in with your local account information, click "Register" and then click "Register with online account"
9. You will be brought to the login page of the online data hub again. Instead of pressing sign-up, log in with your new online account information.
10. Now you should see a new Register a device page. If you have multiple sharing networks, choose the zone you are registering a device for. You do not need to change the public key. Click register to complete the process.



Register a device

Zone:

My Organization / My Organiza ▾

Public key:

MIIBCgKCAQEAj/j5+GH+37vBc0c

(This field will be filled in automatically)

Register

11. Congratulations! You are done registering your device. To register another device, you only need to repeat steps 10-12 on the new device.

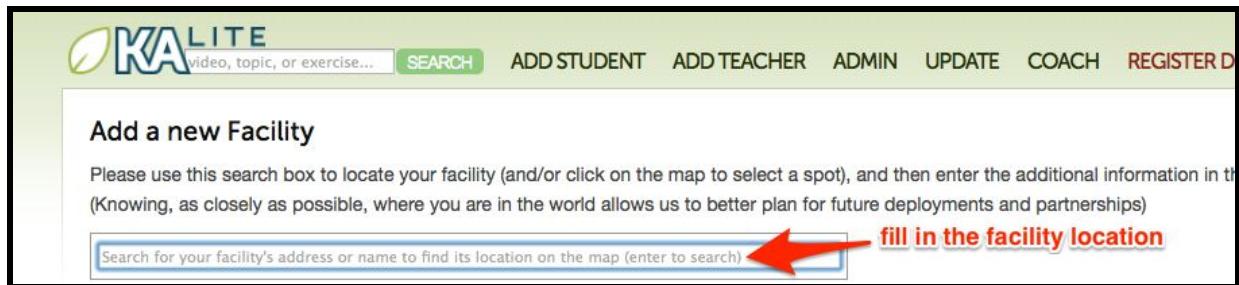
Post Registration Setup

Now that you have registered successfully, it's time to configure your local KA Lite installation to suit your needs. If any terms like facility or device become confusing, feel free to reference the Glossary for a quick reminder.

How to create a facility

KA Lite assumes that you are going to be using the software primarily in one place. This could be a school, a home, a community center, etc. We call this place a “facility”, and use it to help differentiate users who are syncing back data with our central data hub. In order to create a facility follow the steps below.

1. Login into KA Lite.
2. If it is your first time logging into KA Lite, you will automatically be brought to the Add a New Facility Page, where you will need to fill in the facility location.



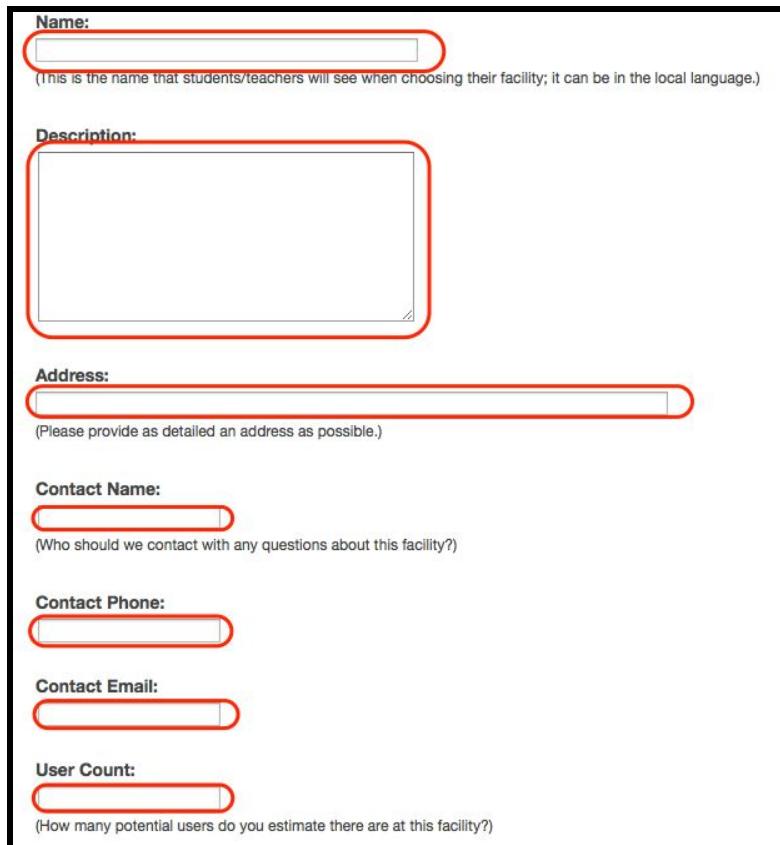
KA LITE video, topic, or exercise... **SEARCH** ADD STUDENT ADD TEACHER ADMIN UPDATE COACH REGISTER D

Add a new Facility

Please use this search box to locate your facility (and/or click on the map to select a spot), and then enter the additional information in the fields below. (Knowing, as closely as possible, where you are in the world allows us to better plan for future deployments and partnerships)

Search for your facility's address or name to find its location on the map (enter to search) **fill in the facility location**

3. Fill in the information for all the highlighted fields you will find below the map.



Name:

(This is the name that students/teachers will see when choosing their facility; it can be in the local language.)

Description:

Address:

(Please provide as detailed an address as possible.)

Contact Name:

(Who should we contact with any questions about this facility?)

Contact Phone:

Contact Email:

User Count:

(How many potential users do you estimate there are at this facility?)

4. Click save facility to save the information you have entered.

Name:

(This is the name that students/teachers will see when choosing their facility; it can be in the local language.)

Description:

Address:

(Please provide as detailed an address as possible.)

Contact Name:

(Who should we contact with any questions about this facility?)

Contact Phone:

Contact Email:

User Count:

(How many potential users do you estimate there are at this facility?)

[click to save the facility information you have entered](#)

[Save facility](#) 

5. Once the information has been saved, you will be brought to a new page, where you will see a message indicating that you have successfully saved your new facility.

The facility 'UCSD' has been successfully saved!

Facilities

UCSD (#3982) [Edit facility](#) [Add student](#) [Add teacher](#) [Add group](#)

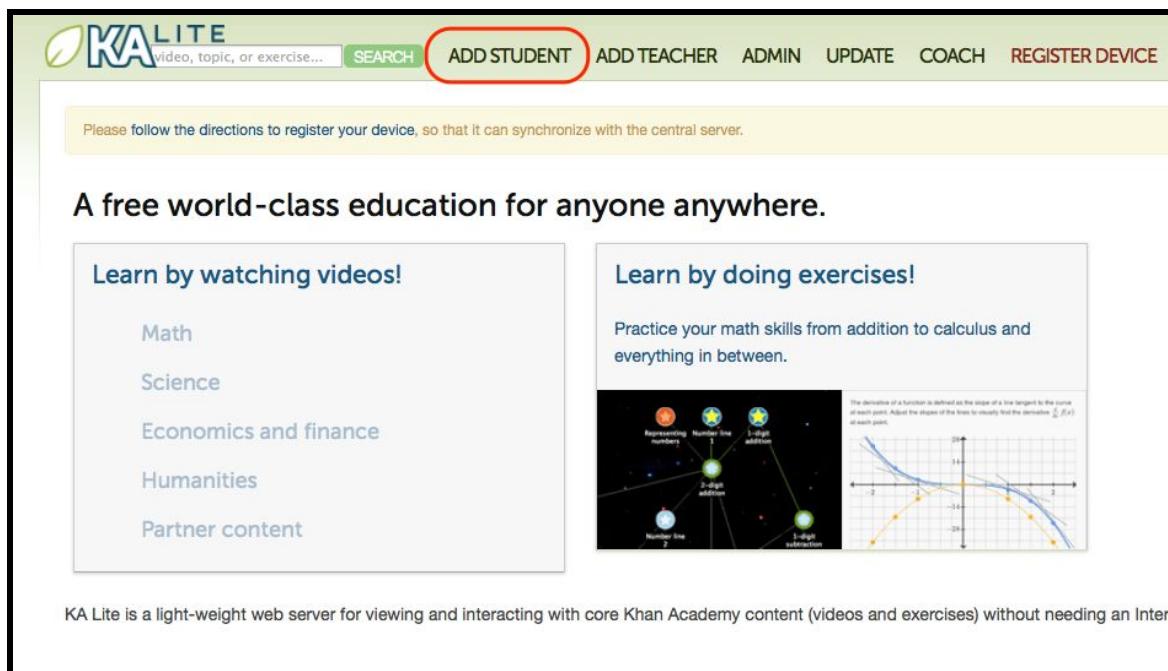
[Add a new Facility](#)

Adding students and coaches

Students and coaches are the two other user types that KA Lite supports. In order for them to be able to login, you need to create accounts for them.

How to add a student

1. Login to KA Lite
2. Click on Add Student in the top navigation



The screenshot shows the KA Lite homepage. At the top, there is a navigation bar with the KA Lite logo, a search bar, and several buttons: 'SEARCH', 'ADD STUDENT' (which is highlighted with a red circle), 'ADD TEACHER', 'ADMIN', 'UPDATE', 'COACH', and 'REGISTER DEVICE'. Below the navigation bar, a yellow banner displays the text: 'Please follow the directions to register your device, so that it can synchronize with the central server.' In the center of the page, there is a large heading: 'A free world-class education for anyone anywhere.' Below this heading, there are two main sections: 'Learn by watching videos!' on the left and 'Learn by doing exercises!' on the right. The 'Learn by watching videos!' section lists categories: Math, Science, Economics and finance, Humanities, and Partner content. The 'Learn by doing exercises!' section shows a math exercise involving a number line and a graph of a function with a tangent line. At the bottom of the page, there is a footer note: 'KA Lite is a light-weight web server for viewing and interacting with core Khan Academy content (videos and exercises) without needing an Internet connection.'

3. Fill in all the information on the add a new student page. Be sure to write down the username and password on the handout under Useful Handouts!
4. Click create user to save the new student information you have entered.

Add a new student

(Group/class):

Username: studentusername

First Name: studentfirstname

Last Name: studentlastname

Password:

Confirm password:

click create user to save the new student information

Create user

5. The page should refresh, with a new message at the top saying you have successfully created a new student account. Do not worry if the fields are empty. As long as you see the message, the account has been created.

KA LITE video, topic, or exercise... **SEARCH** **ADD STUDENT**

You successfully created user 'studentfirstname studentlastname'

Add a new student

(Group/class):
 ----- **+**
 (Add a new group)

Username:

First Name:

Last Name:

Password:

Confirm password:

Create user

How to add a coach:

1. Login to KA Lite
2. Click on Add Coach in the top navigation.

KA LITE video, topic, or exercise... **SEARCH** **ADD STUDENT** **ADD TEACHER** **ADMIN** **UPDATE** **COACH** **REGISTER DEVICE**

Please follow the directions to register your device, so that it can synchronize with the central server.

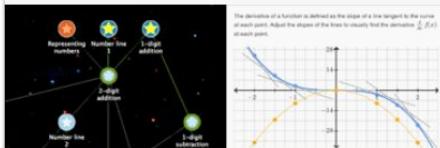
A free world-class education for anyone anywhere.

Learn by watching videos!

- Math
- Science
- Economics and finance
- Humanities
- Partner content

Learn by doing exercises!

Practice your math skills from addition to calculus and everything in between.



KA Lite is a light-weight web server for viewing and interacting with core Khan Academy content (videos and exercises) without needing an Internet connection.

3. Fill in all the information on the add a new coach page. Be sure to write down the username and password on the handout under Useful Handouts!
4. Click save user to save the new coach information you have entered.

KA LITE
video, topic, or exercise... **SEARCH** ADD STUDENT ADD TEACHER

Add a new teacher

Username:

First Name:

Last Name:

Password:

Confirm password:

click create user to save the new teacher information you have entered

Create user

5. The page should refresh, with a new message at the top saying you have successfully created a new coach account. Do not worry if the fields are empty. As long as you see the message, the account has been created.

You successfully created user 'teacherfirstname teacherlastname'

Add a new teacher

Username:

First Name:

Downloading Videos

Now that you've created a facility and user accounts, it's time to add content video content to your local KA Lite installation! Because the videos take up quite a bit of space, we give you the option to only download those that you need. If you think you will want all of the videos and your device has enough space, we recommend skipping to "*Downloading Videos in Bulk*" located in the "Advanced Administration" section. To download individual videos:

1. Click the Update link in the top navigation.

Please select videos to download (below)

Q: How do I bulk-download videos?

Installed Language Packs (Manage)

No language packs installed.

Videos for English

- [-] Khan Academy
- [-] Math
- [-] Science
- [-] Economics and finance
- [-] Humanities
- [-] Partner content

2. Select the video(s) you want to download, by selecting the areas of interest from the organizational tree. You can open up the tree by clicking on the plus symbol to the left of each topic (or close it by clicking on the minus symbol).

KA LITE

video, topic, or exercise... SEARCH ADD STUDENT ADD TEACHER ADMIN UPDATE COACH

Download 1 new selected video(s) (13.4 MB)

Installed Language Packs (Manage)
No language packs installed.

Videos for English

- [-] Khan Academy
 - [-] Math
 - [-] Arithmetic and pre-algebra
 - [-] Addition and subtraction
 - Intro to addition and subtraction
 - Two digit addition and subtraction
 - Addition with carrying
 - Subtraction with borrowing (regrouping)
 - Addition and subtraction word problems
 - Subtraction word problem
 - Multiplication and division
 - Factors and multiples
 - Negative numbers and absolute value
 - Decimals
 - Fractions
 - Ratios, proportions, units and rates
 - Applying mathematical reasoning
 - Exponents, radicals, and scientific notation
 - Arithmetic properties
 - Telling time
 - Measurement

click the - sign to collapse the subcategories and videos

select the video(s) you want to download

click the + sign to expand and see subcategories and more videos

3. The number of videos left to download for that topic will appear at the top left of the screen after you select one or more boxes. (The number of videos already downloaded on the selected topic(s) will also be shown on the “delete ___ selected videos”. NOTE: Please don't click this button unless you need to free up space on your server computer)
4. Click the download button in the top left box of the update page, to start the download process. Depending on the number of videos and the strength of the current internet connection, this may take quite a lot of time. It's better to download in smaller groups to get access to the content sooner.

KA LITE

video, topic, or exercise... SEARCH ADD STUDENT ADD TEACHER ADMIN UPDATE COACH

Download 1 new selected video(s) (13.4 MB)

Installed Language Packs (Manage)
No language packs installed.

Videos for English

- Kh Khan Academy
 - Math
 - Arithmetic and pre-algebra
 - Addition and subtraction
 - Intro to addition and subtraction
 - Two digit addition and subtraction
 - Addition with carrying
 - Subtraction with borrowing (regrouping)
 - Addition and subtraction word problems
 - Subtraction word problem

click the button to start downloading your selected video(s)

- Once the download is completed, the video is ready for your students to watch!

Downloading Language Packs

KA Lite supports internationalization, and you can download language packs for your language if it is available. A language pack comes with all the available subtitles and user interface translations for that language, and when it is installed, KA Lite will give you the option to download individual dubbed videos from the language's Khan Academy YouTube channel.

To download language packs:

- From the "Update" page, click "Manage" in the Language Packs box.

KA LITE

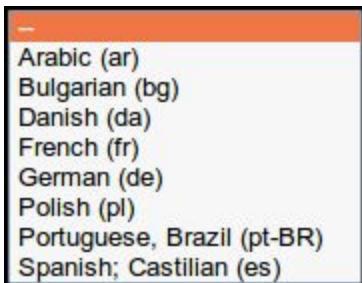
video, topic, or exercise... SEARCH ADD STUDENT ADD TEACHER ADMIN UPDATE COACH DYLAN (LOGOUT)

Downloaded 2 of 2 videos successfully.

Please select videos to download (below)
Q: How do I bulk-download videos?

Installed Language Packs (Manage)
No language packs installed.

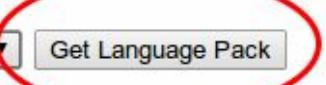
- Select your desired language from the list of available language packs



3. Click “Get Language Pack” to start the download

Download or Update Language Packs

Language packs contain all available translations for the interface and video subtitles.

French (fr)  Get Language Pack

713 subtitle(s) 98.44% translated 4.65 MB (to download) 14.10 MB (on disk) 402 exercise(s)

4. Once the download finishes, you can see your Language Pack in the list of installed language packs. Students and coaches will now be able to switch their language to any of the installed language packs. Their default will initially be the default that you can set by clicking “Set as default”.

Installed Languages

(Default) English (en)	- 0 Subtitles / 100% Translated	Upgrade (+0% Translated / +4416 Subtitles / 19.17 MB)
(Set as default) French (fr)	- 713 Subtitles / 98% Translated	
(Set as default) Spanish; Castilian (es)	- 1350 Subtitles / 98% Translated	

Students

Who is a “student”?

A student is anyone who uses KA Lite primarily for learning. Student accounts will track

progress through videos and exercises, and students will only be allowed to view their own data.

What can a student do in KA Lite?

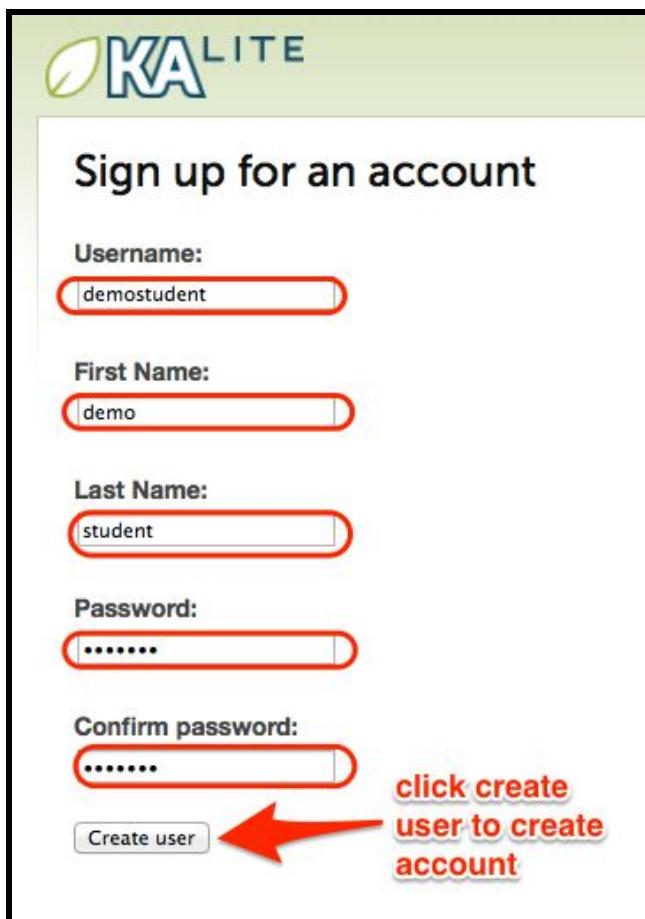
KA Lite allows students to interact with Khan Academy content by watching videos and doing exercises from a range of educational topics. Students can sign up for accounts. If students are logged in, they will earn points while watching videos and doing exercises, and track their progress in completing videos and mastering exercises.

How can students get an account?

Students may receive their account information from their Coaches or Administrators if their account has been preconfigured. However, it is possible for students to create their own account. To create an account:

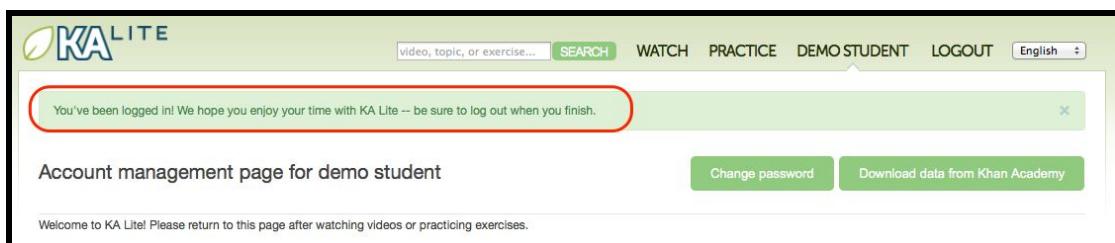
1. Open KA Lite.
2. Click the Sign Up link on the top navigation of the KA Lite home page.

3. Fill in the information on the “sign up for an account” page.
4. Click create user to finish creating an account.



The image shows the KA Lite sign-up form. It has five input fields: 'Username' (demostudent), 'First Name' (demo), 'Last Name' (student), 'Password' (represented by a redacted string), and 'Confirm password' (also redacted). Below these fields is a 'Create user' button. To the right of the 'Create user' button, there is a red annotation with the text 'click create user to create account' and a red arrow pointing to the button.

5. After you have successfully created your account, the page will refresh to your account management page, and you will see a successful login message.



The image shows the KA Lite account management page. At the top, there is a search bar with 'video, topic, or exercise...' and a 'SEARCH' button. Below the search bar are links for 'WATCH', 'PRACTICE', 'DEMO STUDENT', 'LOGOUT', and 'English'. A green banner at the top says 'You've been logged in! We hope you enjoy your time with KA Lite -- be sure to log out when you finish.' Below the banner, the page title is 'Account management page for demo student'. There are two green buttons: 'Change password' and 'Download data from Khan Academy'. At the bottom, there is a message: 'Welcome to KA Lite! Please return to this page after watching videos or practicing exercises.'

How can students log in?

Students can log in to earn points and track their progress in completing videos and mastering exercises. To log in, students must:

1. Open KA Lite

To open KA Lite:

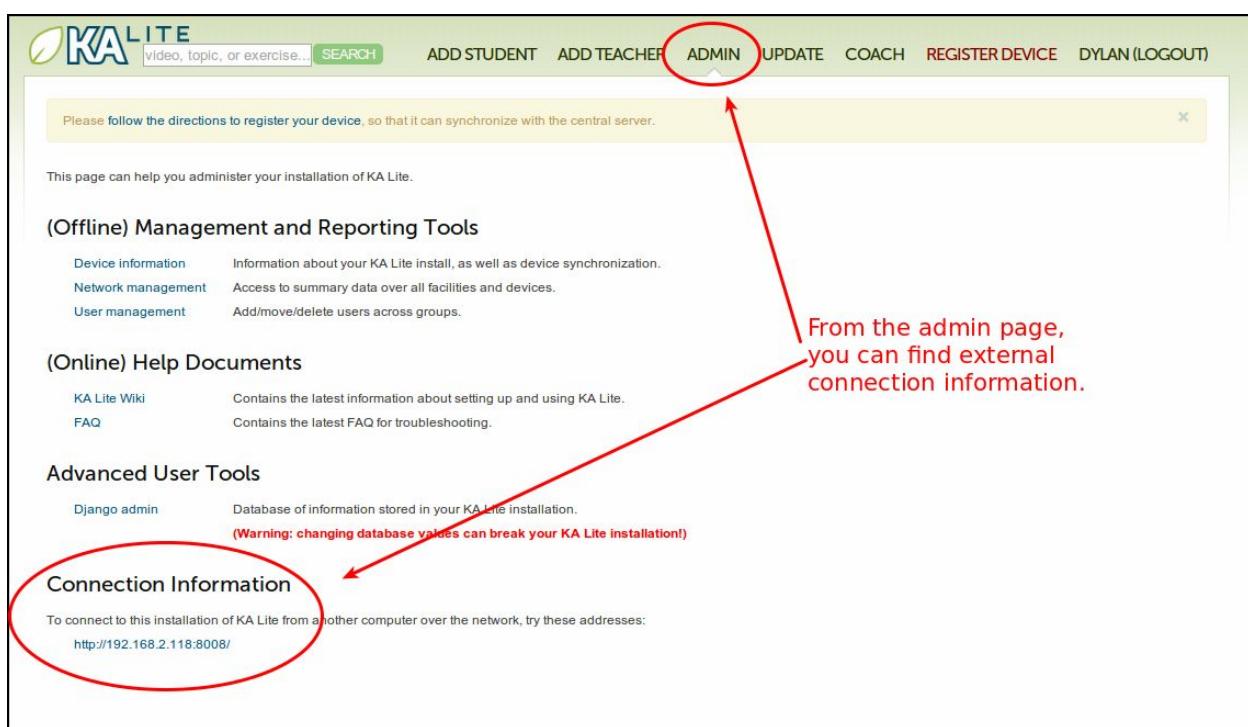
- Open up your Internet browser. In the address bar of your browser, enter the IP

address of the KA Lite server followed by ':8008' (ex: <http://127.0.0.1:8008/>). Your browser will load up the KA Lite homepage.

- To find your IP address:
- if you are running KA Lite on your own computer enter 127.0.0.1:8008 in the address bar.
- if you are accessing KA Lite on a network, ask your project administrator for the IP address of the server.

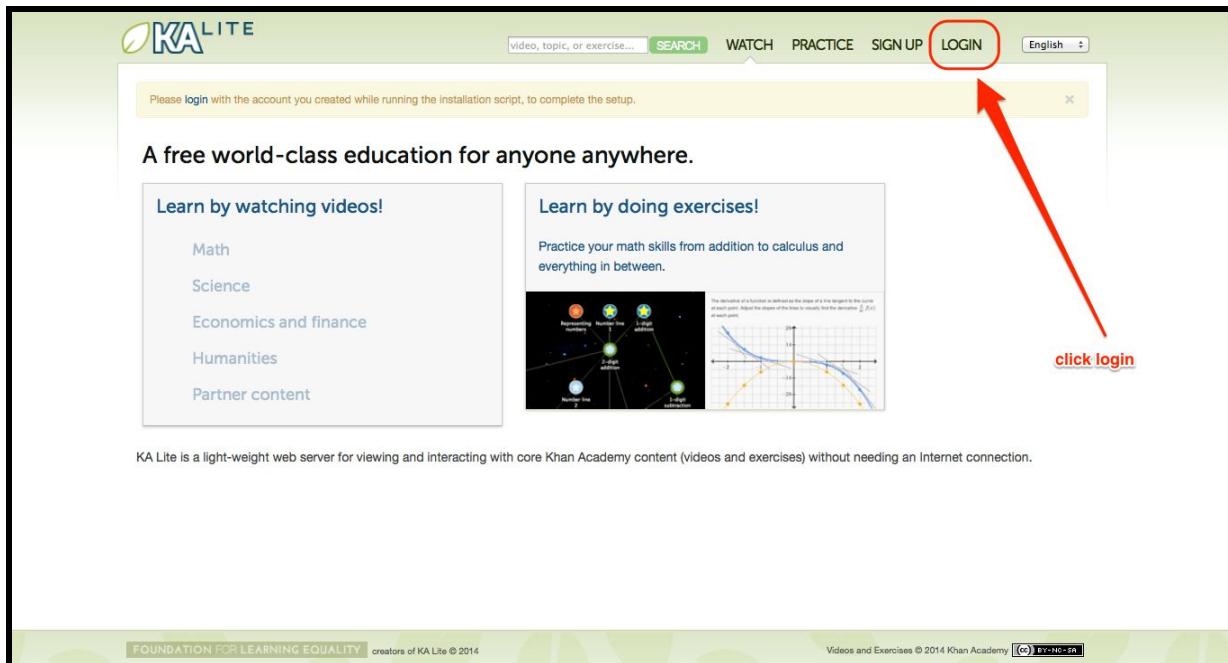
Administrators: How to find your IP address:

From the admin page, you will be able to see the IP address for the KA Lite server that other computers can connect to:

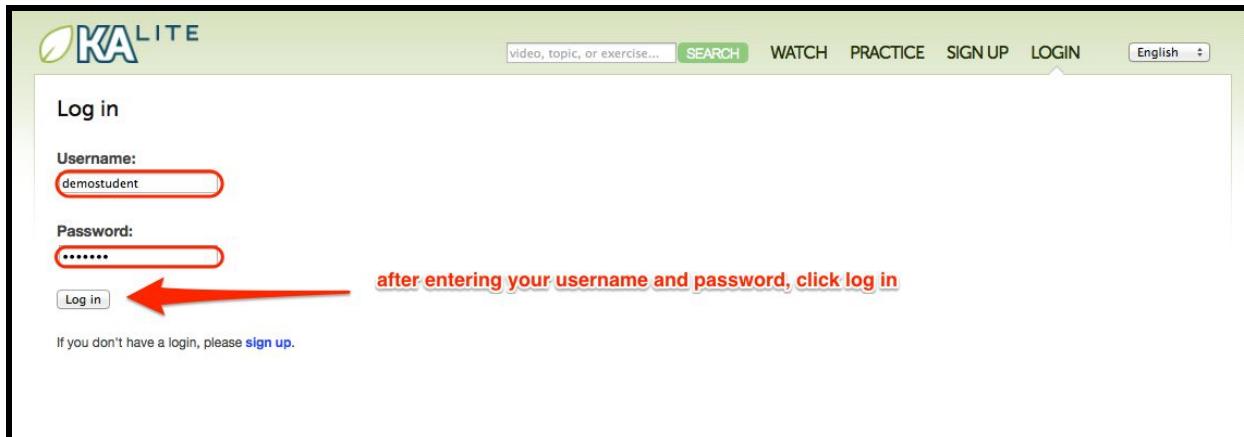


The screenshot shows the KA Lite Admin interface. At the top, there is a navigation bar with links: ADD STUDENT, ADD TEACHER, ADMIN (circled in red), UPDATE, COACH, REGISTER DEVICE, and DYLAN (LOGOUT). A message box says: "Please follow the directions to register your device, so that it can synchronize with the central server." Below this, a note says: "This page can help you administer your installation of KA Lite." The main content is organized into sections: "(Offline) Management and Reporting Tools", "(Online) Help Documents", and "Advanced User Tools". A red arrow points from the text "From the admin page, you can find external connection information." to the "Connection Information" section. A red circle highlights the "Connection Information" section, which contains the text: "To connect to this installation of KA Lite from another computer over the network, try these addresses: <http://192.168.2.118:8008/>".

2. Once you are on the KA Lite homepage, click on the login link on the top right corner of the main navigation.



3. Enter your Username and Password and click on the 'Login' button. Your username and password should have been provided to you by your coach or system administrator. If you haven't been provided one, you'll need to get one from your coach or admin.



4. After you successfully login, you will be brought to your account management page and see a successful login message at the top.

5. Congratulations! You are now logged in to KA Lite. You will be able to receive points for watching videos and track your progress in the practice problems.

How can I watch a video?

To begin watching the Khan Academy instructional videos, first make sure you are logged in to KA Lite. Then, select WATCH in the top navigation.

On the Watch page, you will see a box underneath 'Learn by watching videos!', you can select which type of instructional video you want to watch, including 'Math', 'Science', 'Economics and Finances', and 'Humanities'. Greyed out text indicates that no videos have been downloaded for that subject area. Ask your Coach or Project Administrator if you'd like a certain video to be downloaded.

KA LITE

video, topic, or exercise... **SEARCH** WATCH PRACTICE STUDENTFIRSTNAME STUDENTLASTNAME LOGOUT English

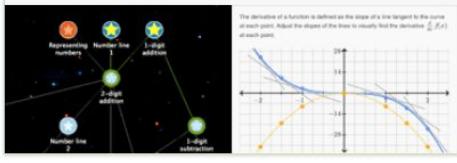
A free world-class education for anyone anywhere.

Learn by watching videos!

- Math** ← click on a subject to view more detailed topics
- Science
- Economics and finance
- Humanities
- Partner content

Learn by doing exercises!

Practice your math skills from addition to calculus and everything in between.



KA Lite is a light-weight web server for viewing and interacting with core Khan Academy content (videos and exercises) without needing an Internet connection.

Upon selecting a category, it will bring you to subcategories.

KA LITE

video, topic, or exercise... **SEARCH** WATCH PRACTICE STUDENTFIRSTNAME STUDENTLASTNAME LOGOUT English

Math

Subtopics

- Arithmetic and pre-algebra** ← click on a subtopic to search for a specific video
- Algebra
- Geometry
- Trigonometry and precalculus
- Calculus
- Probability and statistics
- Differential equations
- Linear algebra
- Applied math
- Recreational math
- Test prep
- Math contests

Continue through the subcategories until you find the specific video you are looking for. When you watch videos, you earn points.

Basic addition
Introduction to addition. Multiple visual ways to represent addition.

Practice this concept

Points: 54
Basic subtraction >

Earn points for watching videos

+



How can I practice exercises?

Assuming that you have already logged into KA Lite, to practice exercises, first click on 'PRACTICE' in the top right.

KA LITE

video, topic, or exercise... SEARCH WATCH PRACTICE STUDENTFIRSTNAME STUDENTLASTNAME LOGOUT English

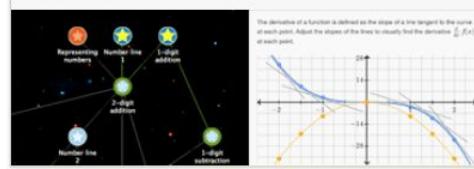
A free world-class education for anyone anywhere. **click on PRACTICE**

Learn by watching videos!

- Math
- Science
- Economics and finance
- Humanities
- Partner content

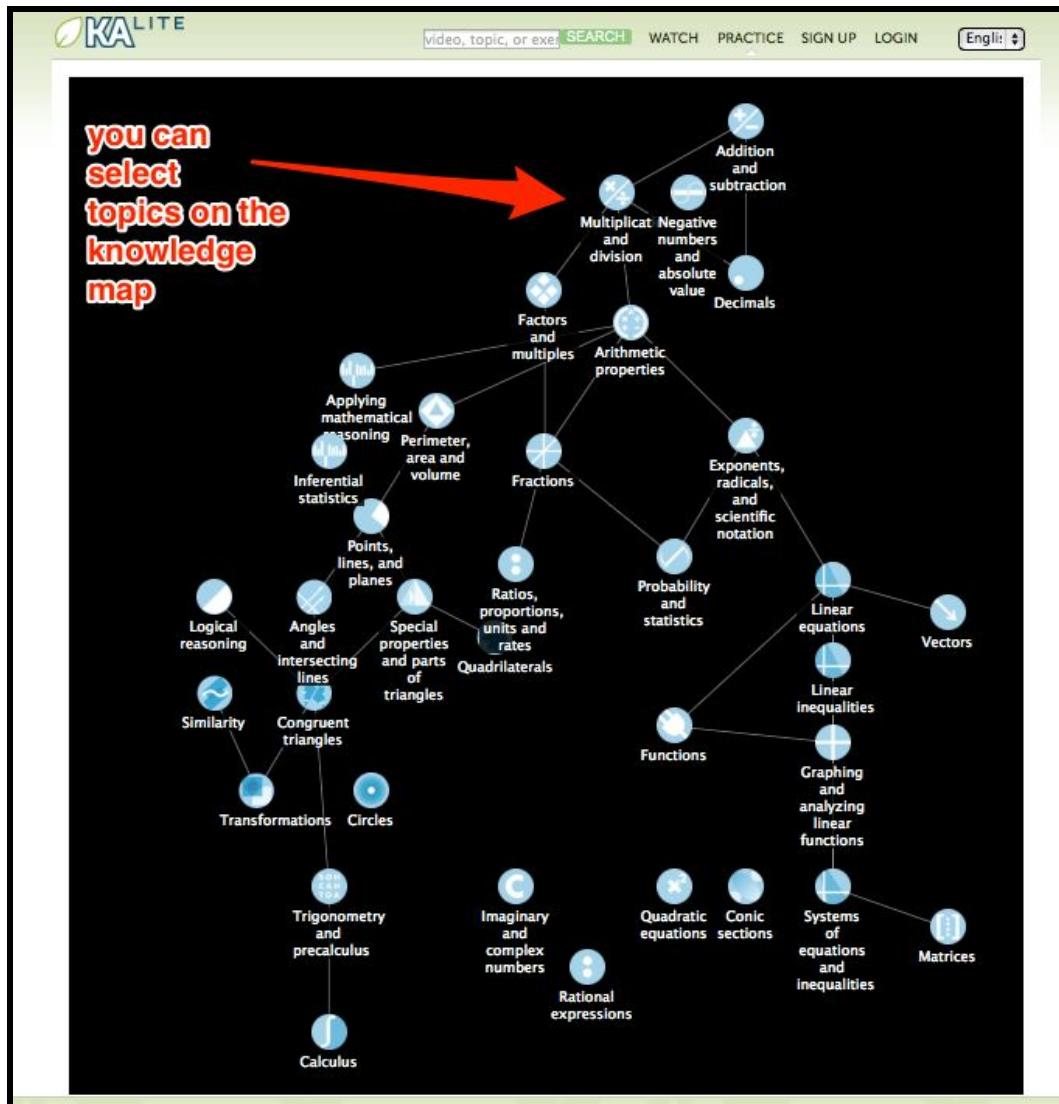
Learn by doing exercises!

Practice your math skills from addition to calculus and everything in between.

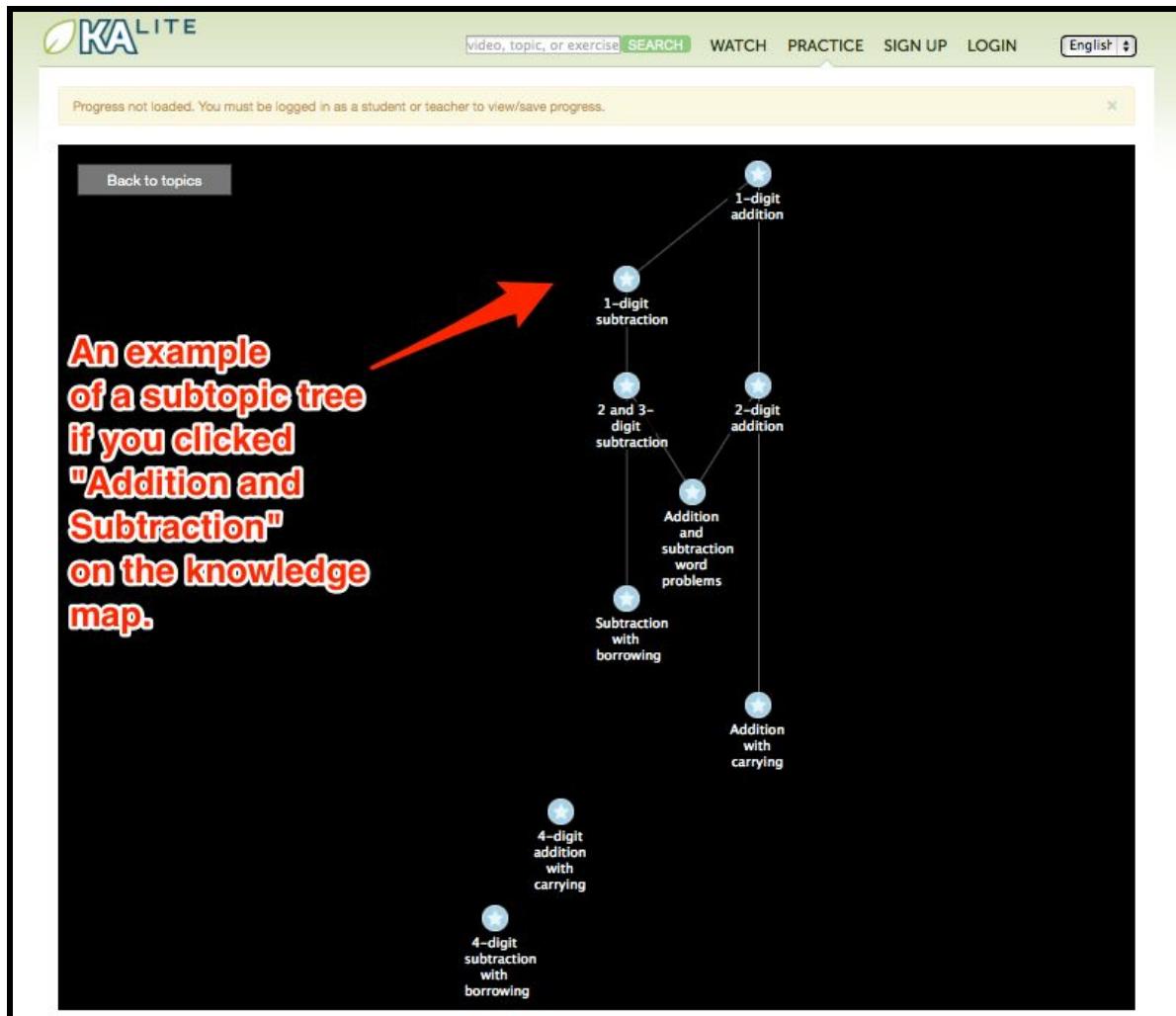


KA Lite is a light-weight web server for viewing and interacting with core Khan Academy content (videos and exercises) without needing an Internet connection.

This brings you to the knowledge map, which connects topics together to make a tree of knowledge.



Selecting the topic you wish to practice will bring you to a 'subtopic tree'. From there you can select the specific type of problem you want to practice.



Progress not loaded. You must be logged in as a student or teacher to view/save progress.

Back to topics

An example of a subtopic tree if you clicked "Addition and Subtraction" on the knowledge map.

```
graph TD; A[1-digit addition] --> B[1-digit subtraction]; A --> C[2 and 3-digit subtraction]; A --> D[2-digit addition]; B --> E[Addition and subtraction word problems]; B --> F[Subtraction with borrowing]; D --> G[Addition with carrying]; E --> H[4-digit addition with carrying]; E --> I[4-digit subtraction with borrowing]
```

1-digit addition

1-digit subtraction

2 and 3-digit subtraction

2-digit addition

Addition and subtraction word problems

Subtraction with borrowing

Addition with carrying

4-digit addition with carrying

4-digit subtraction with borrowing

To answer a question, enter the answer either in the box, or in the exercise panel, and click 'Check Answer'.

Progress not loaded. You must be logged in as a student or teacher to view/save progress.

1-digit subtraction >

Practicing 1-digit addition

Add two numbers from 1 to 10

3+4=?

1. solve the problem shown here

Answer

Acceptable formats

7

Check Answer

Need help?

I'd like a hint

Note: this will reset your streak and points for this exercise!

Show scratchpad

2. enter your answer in the text box

3. click here to submit and check your answer

When you correctly answer a question, you will receive points. The harder the exercise you are answering questions for, the more points you will get for each correct answer. Sometimes you will get bonus points for a correct answer!

video, topic, or exercise... SEARCH WATCH PRACTICE SIGN UP LOGIN English

1-digit subtraction >

Practicing 1-digit addition

Add two numbers from 1 to 10

3+4=?

10

Answer

Acceptable formats

10 points!

7

Correct! Next Question...

Show hints (3 available)

progress bar tracks how many points you have earned

click to move on to the next question

Show scratchpad

When practicing the exercises, after 10 correct answers in a row, your points for the exercise will be added to your total and you will have mastered the exercise, and may work on other exercises or watch other videos.

If you get an answer wrong or ask for a hint, your 'streak' will reset, and all the points you have earned for this exercise will be lost.

Practicing 1-digit addition
Add two numbers from 1 to 10

1-digit subtraction >

95

Answer

Acceptable formats

Check Answer

Need help?

I'd like a hint

Note: this will reset your streak and points for this exercise!

this will be reset to 0 if you click the hint button

click here if you need a hint to solve the problem

Show scratchpad

If you are having trouble, you can click on 'I'd like a hint'. However, your 'streak' will reset, and all the points you have earned for this exercise will be lost.

Practicing 1-digit addition
Add two numbers from 1 to 10

1-digit subtraction >

6 + 4 = ?

hints appear here

There are 6 blue dots. There are 4 green dots. There are a total of 10 dots.

Answer

Need help?

I'd like another hint (0 hints left)

Note: this will reset your streak and points for this exercise!

progress bar shows that you go back to 0 when you click for hints

you have 3 different hints available

You can watch any related videos to refresh your memory of the topic.

Practicing 1-digit addition
Add two numbers from 1 to 10

5 + 3 = ?

Answer

Need help?

I'd like a hint

Note: this will reset your streak and points for this exercise!

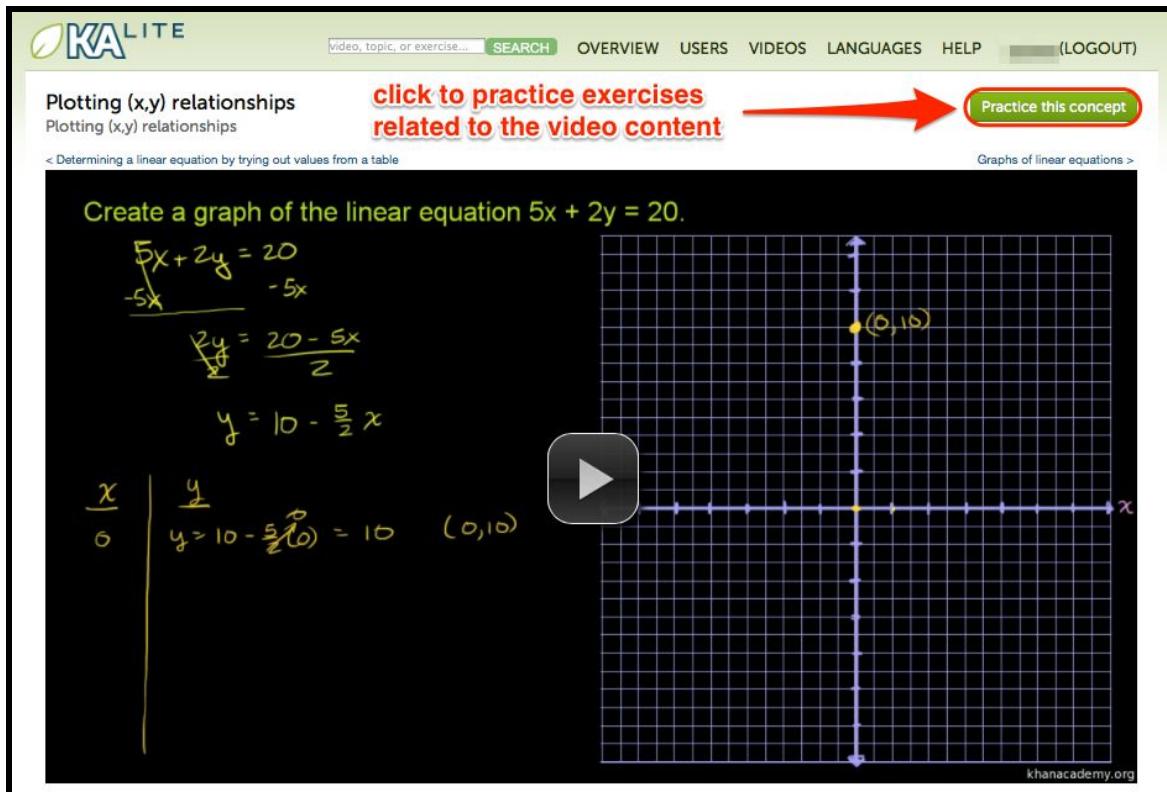
Stuck? Watch a video.

Basic addition

click to watch related video

If you are already in a video, you can quickly get to the correct exercise by choosing 'Practice'

this concept'.



Plotting (x,y) relationships

click to practice exercises related to the video content

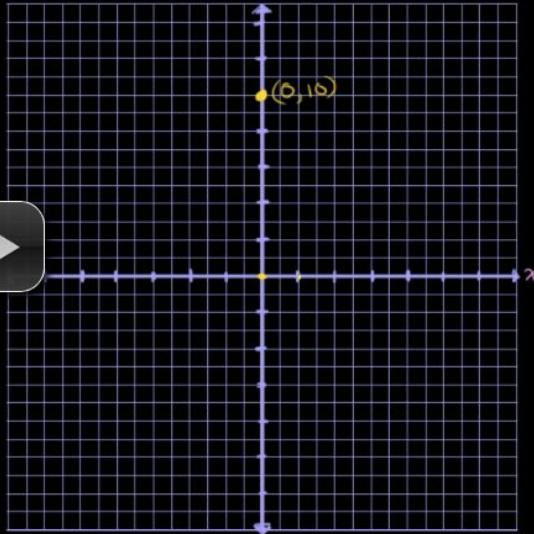
Practice this concept

Create a graph of the linear equation $5x + 2y = 20$.

$$\begin{aligned} 5x + 2y &= 20 \\ -5x & \\ 2y &= 20 - 5x \\ y &= 10 - \frac{5}{2}x \end{aligned}$$

$$\begin{array}{|c|c|} \hline x & y \\ \hline 0 & 10 \\ \hline \end{array} \quad y = 10 - \frac{5}{2}(0) = 10 \quad (0, 10)$$

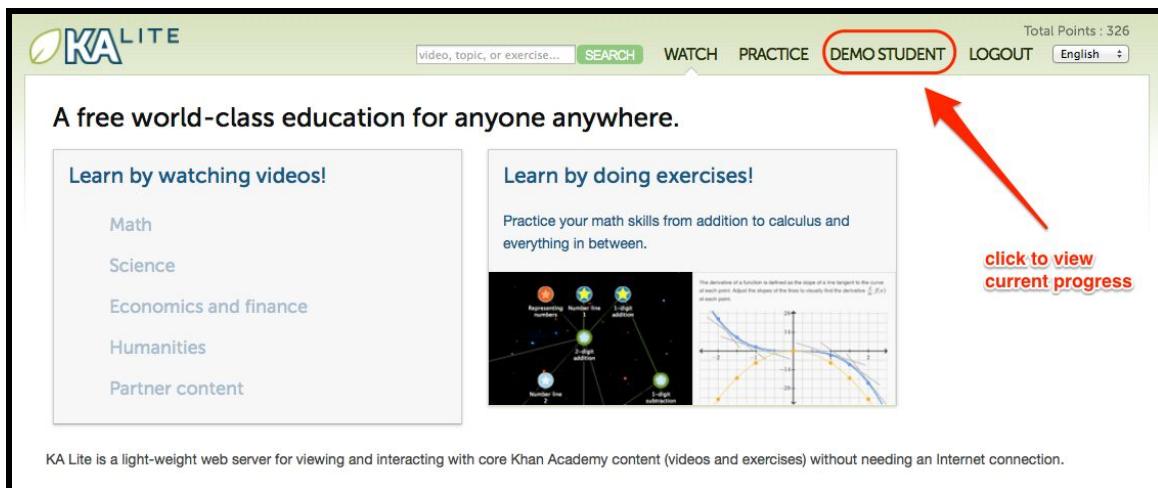




khanacademy.org

How can I view my progress?

To view your own progress in the education material, select your name in the top right.



Total Points : 326

DEMO STUDENT

A free world-class education for anyone anywhere.

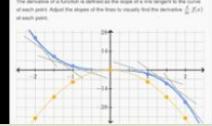
Learn by watching videos!

- Math
- Science
- Economics and finance
- Humanities
- Partner content

Learn by doing exercises!

Practice your math skills from addition to calculus and everything in between.

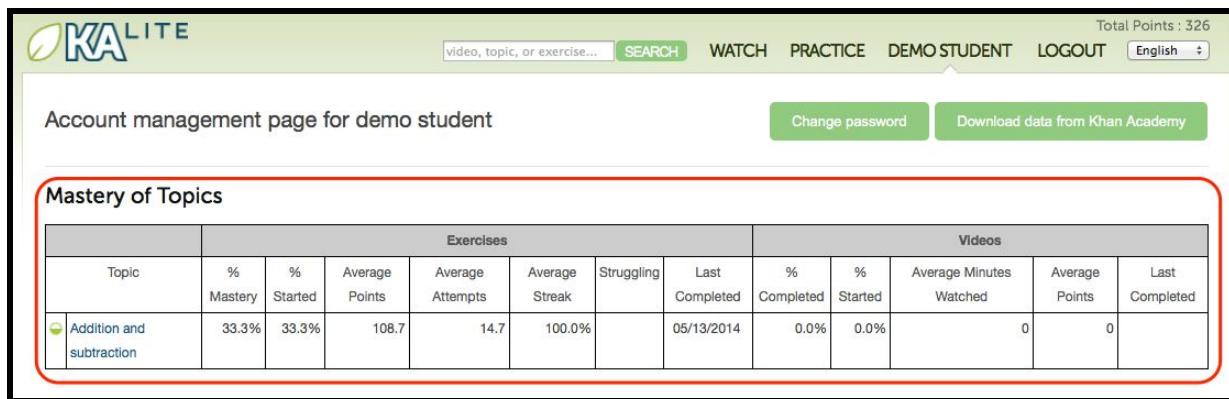




click to view current progress

KA Lite is a light-weight web server for viewing and interacting with core Khan Academy content (videos and exercises) without needing an Internet connection.

On the page that comes up there is a table containing all the information regarding the work you have done in KA Lite.



The screenshot shows the KA Lite account management page. At the top, there is a search bar with the placeholder "video, topic, or exercise...", a "SEARCH" button, and navigation links for "WATCH", "PRACTICE", "DEMO STUDENT", and "LOGOUT". A language selector shows "English". The total points are listed as 326. Below the header, a message says "Account management page for demo student". There are two buttons: "Change password" and "Download data from Khan Academy". The main content is a table titled "Mastery of Topics" with a red border. The table has two sections: "Exercises" and "Videos". The "Exercises" section contains one row for the topic "Addition and subtraction". The "Videos" section is empty. The table columns are: Topic, % Mastery, % Started, Average Points, Average Attempts, Average Streak, Struggling, Last Completed, % Completed, % Started, Average Minutes Watched, Average Points, and Last Completed.

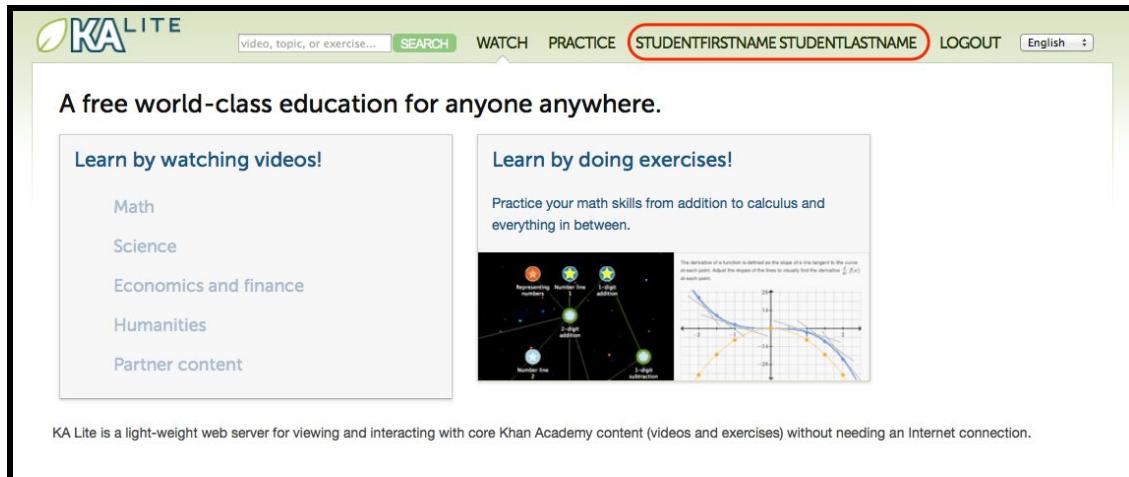
Mastery of Topics												
Topic	Exercises						Videos					
	% Mastery	% Started	Average Points	Average Attempts	Average Streak	Struggling	Last Completed	% Completed	% Started	Average Minutes Watched	Average Points	Last Completed
Addition and subtraction	33.3%	33.3%	108.7	14.7	100.0%		05/13/2014	0.0%	0.0%	0	0	

On the far left of the table, the topic you have worked in is listed. Following the topic is information regarding the mastery of the exercises, the completion of the videos, and other statistics that might be of importance to you.

How can I update my account information?

To update your account information, you must:

1. First login to KA Lite, with your username and password.
2. Once you have logged in successfully, click on your name, which should appear in the top navigation of the page.



The screenshot shows the KA Lite homepage. At the top, there is a search bar with the placeholder "video, topic, or exercise...", a "SEARCH" button, and navigation links for "WATCH", "PRACTICE", and "STUDENTFIRSTNAME STUDENTLASTNAME" (which is highlighted with a red oval). A language selector shows "English". The main message is "A free world-class education for anyone anywhere." Below this, there are two sections: "Learn by watching videos!" and "Learn by doing exercises!". The "Learn by watching videos!" section lists categories: Math, Science, Economics and finance, Humanities, and Partner content. The "Learn by doing exercises!" section shows a math exercise involving derivatives and a graph. At the bottom, a footer note says: "KA Lite is a light-weight web server for viewing and interacting with core Khan Academy content (videos and exercises) without needing an Internet connection."

3. You will be brought to an account management page where you will see two buttons. A change password button and a download data from Khan Academy button.
4. Click on the change password button to update or edit your username and password information.

5. Click update user to save the account information you have changed.

Coaches

Who is a “coach”?

Coaches are users who add, manage, and track the progress of groups of students. They have access to student progress data in the form of coach reports, and can step in and provide individualized instruction when the student needs it.

How can coaches use KA Lite?

Coaches can use KA Lite to track the progress of their students as they interact with the educational resources. The Reporting tools give coaches the necessary information to track their students' progress.

Coach Reports - What are they?

Coach reports are visualizations of the data generated by your students. The goal of the coach reports is to put the data into an easy to understand format, so you can understand how your students are progressing and where they need the most help.

The Report Page displays three types of reports. Coaches may change groups and facilities anytime in order to track different sections.

The screenshot shows the KA Lite Coach Reports interface. At the top, there are navigation links: SEARCH, ADD STUDENT, ADD TEACHER, ADMIN, UPDATE, COACH, and TEACHERFIRSTNAME TEACHERLASTNAME (LOGOUT). Below this, the title 'Coach Reports for UCSD (#3982) / [all groups]' is displayed, with a red arrow pointing to the '[all groups]' link and the text 'click to change group'.

Three reports are presented in a grid:

- Progress by topic:** A heatmap showing student progress across various topics. A red arrow points to the text 'click to view student progress by topic'.
- Effort versus achievement:** A scatter plot showing the relationship between effort and achievement. A red arrow points to the text 'click to view student effort and achievement'.
- Mastery over time:** A line graph showing mastery levels over time from February to May 2013. A red arrow points to the text 'click to view student mastery over time'.

At the bottom of the page, there are copyright notices: 'FOUNDATION FOR LEARNING EQUALITY creators of KA Lite © 2014' and 'Videos and Exercises © 2014 Khan Academy [CC BY-NC-SA]'.

- Clicking on the current facility will show a drop down menu of facilities that can be viewed.
- Clicking on “all groups” will show a drop down menu of groups at that facility.

Understanding the Table Report

A table report is a grid that can show, at a high level, how students are doing in specific subjects. As a coach, you can select which group of students you'd like to check progress for, and which subset of videos or exercises you'd like to see reports on. This allows you to easily identify which students are struggling in which areas, as well as which students are doing well.

Progress By Topic (Table Report)

1. Select “Coach Reports” from the top menu (only applies to math topics)
2. Click on Topic Progress
3. Select a topic from the drop down menu



The screenshot shows the KA Lite Coach Reports interface. At the top, there are navigation links: ADD STUDENT, ADD TEACHER, ADMIN, UPDATE, COACH, and TEACHERFIRSTNAME TEACHERLASTNAME (LOGOUT). Below this, the title 'Coach Reports for UCSD (#3982) / [all groups]' is displayed. To the right of the title is a 'select a topic' button. A red arrow points to the 'Select Topic' dropdown menu, which is currently set to 'Addition and subtraction'. Below the dropdown is a legend with three colored boxes: red for 'Struggling', green for 'Completed', and light blue for 'In Progress'. The main area is a table with columns for Student and various math topics. The rows list 'demo student', 'example student', and 'studentfirstname st'. The 'Completed' status is shown in green for the '4-digit addition with carrying' topic for the 'demo student'.

Student	4-digit subtraction with borrowing	4-digit addition with carrying	1-digit subtraction	2 and 3-digit subtraction	Subtraction with borrowing	Addition and subtraction word problems	1-digit addition	2-digit addition	Addition with carrying
demo student									
example student									
studentfirstname st									

The color of the rectangles in the table indicate how that student is doing on that exercise. The following key explains the color code of the table cells:

	Not Attempted: The student has not attempted the subtopic.
	In Progress: The student has completed a few questions, but hasn't answered 10 correct in a row yet.
	Completed: The student has correctly answered 10 questions in a row.
	Struggling: The student has answered more than 20 questions, but hasn't answered 10 correct in a row yet.

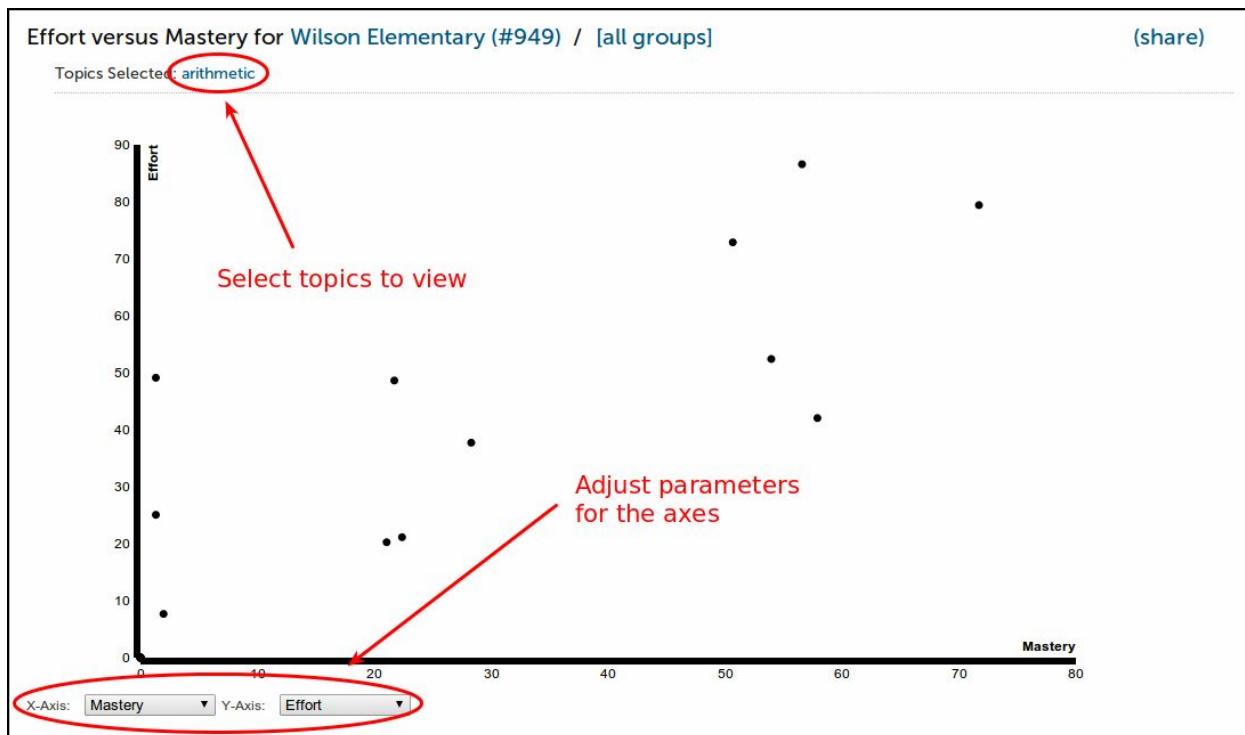
Understanding the Scatter Plot Report

The Scatter Plot report allows coaches to plot various metrics, like student effort, against other

metrics, like students mastery. This helps coaches view data, and identify high-level trends in their students progress.

Effort Versus Achievement (Scatter Plot Report)

1. Click on Effort versus Achievement
2. Select a topic
3. Select the parameters for the X & Y axes

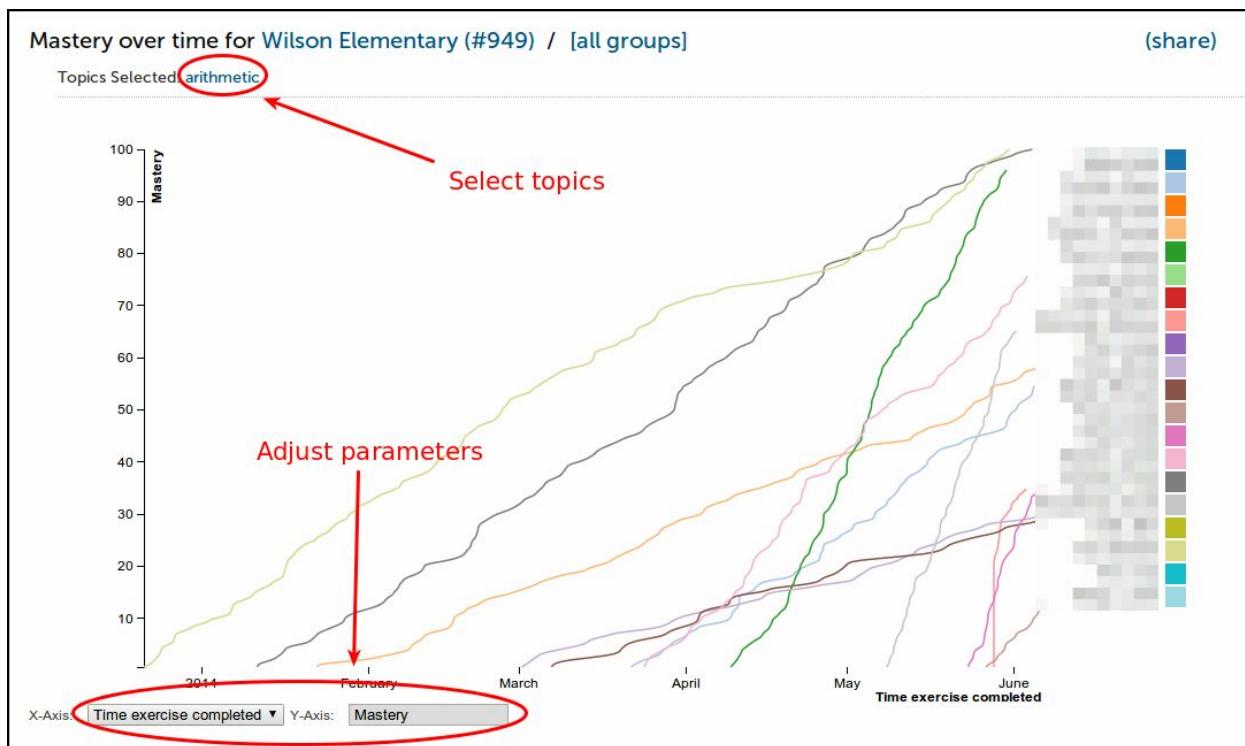


Understanding the Timeline Report

The Timeline Report allows coaches to track individual students' mastery of subjects over time. This is a helpful way to view student progress, and helps with identifying struggling students in relation to their peers.

Mastery Over Time (Timeline Report)

1. Click on Mastery over Time
2. Select a topic
3. Select a parameter for the Y-axis



Advanced Admin

Downloading Videos in Bulk

If you want to download videos in bulk, your best option is to download the KA Lite Videos via BitTorrent. This will be a much faster process than using the KA Lite app to download all of the videos.

1. [Download and install BitTorrent Sync](#)
2. Run BT Sync. On some platforms, this will bring up a graphical interface. On Linux, you will need to then load <http://127.0.0.1:8888/> to get the interface.
3. Add a folder, using "BT7AOITNAIP3X3CSLE2EPQJFXJXMXVGQI" (no quotes) as the secret, and the "content" folder inside your KA Lite installation as the "path" (unless you want the videos going somewhere else).
4. Allow the videos to sync in there from your peers! It may take a while for now, as we don't yet have many seeders on it. On that note -- please help seed by keeping it running even after you've got all the videos, if you have the bandwidth to spare! This will make it easier for others to download the content as well!

Please note that these are resized videos. All in all, this will take just over 20GB of space. Once you have the videos, you need to tell KA Lite where to find them.

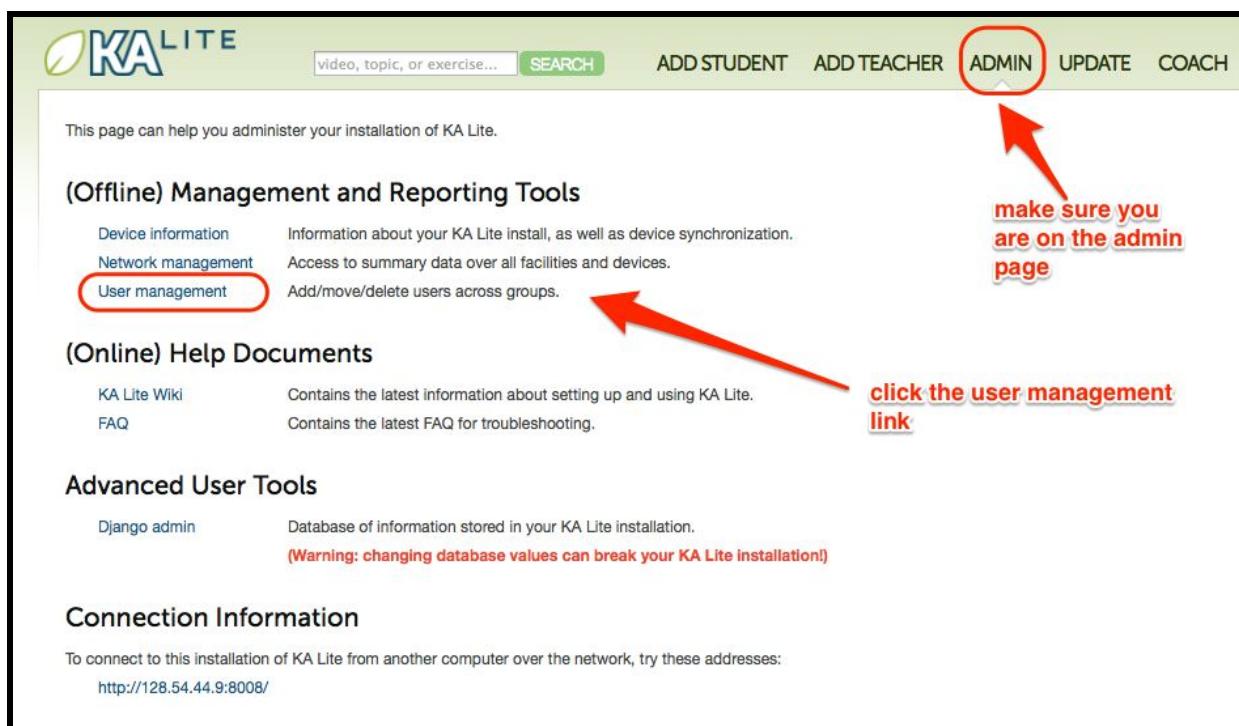
1. Make sure all video files are located in a single directory, with .mp4 extensions (KA Lite expects this!)
2. Create a file local_settings.py in the ka-lite/kalite folder (the one containing settings.py), if it doesn't already exist.
3. add the line CONTENT_ROOT="[full path to your videos directory]", making SURE to include an OS-specific slash at the end (see examples) and encapsulate it in quotes (this makes it a string)
 - a. e.g. on Windows: CONTENT_ROOT="C:\torrented_videos_location\"
 - b. e.g. on Linux: CONTENT_ROOT="/home/me/torrented_videos_location/"
4. Restart your server.

User Management Tools

The user management tools on the admin page make it easy to organize users into specific groups, edit user information, and delete users.

To organize existing users into groups:

1. Click the Admin link in the top navigation of KA Lite.
2. Click the User Management link under the section titled (Offline) Management and Reporting tools. Fill in the empty name field with the name of your new group and then click create group.



This page can help you administer your installation of KA Lite.

(Offline) Management and Reporting Tools

- Device information
- Network management
- User management**

Information about your KA Lite install, as well as device synchronization.
Access to summary data over all facilities and devices.
Add/move/delete users across groups.

(Online) Help Documents

- KA Lite Wiki
- FAQ

Contains the latest information about setting up and using KA Lite.
Contains the latest FAQ for troubleshooting.

Advanced User Tools

- Django admin

Database of information stored in your KA Lite installation.
(Warning: changing database values can break your KA Lite installation!)

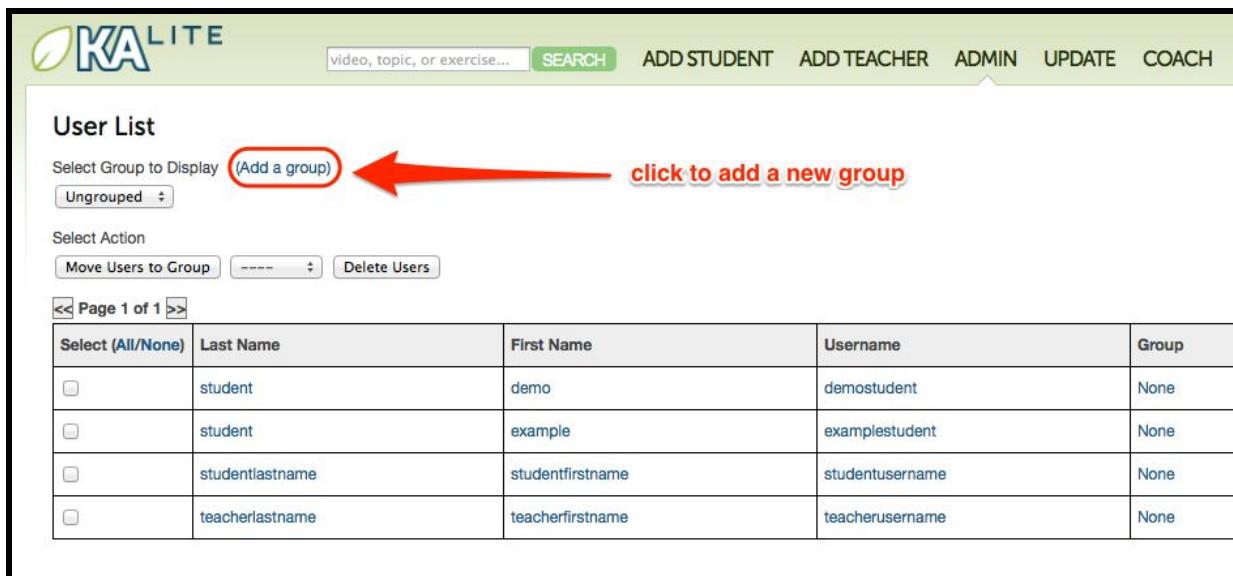
Connection Information

To connect to this installation of KA Lite from another computer over the network, try these addresses:
<http://128.54.44.9:8008/>

make sure you are on the admin page

click the user management link

3. On the user list page, click Add a group to start creating a new group you can organize users in.

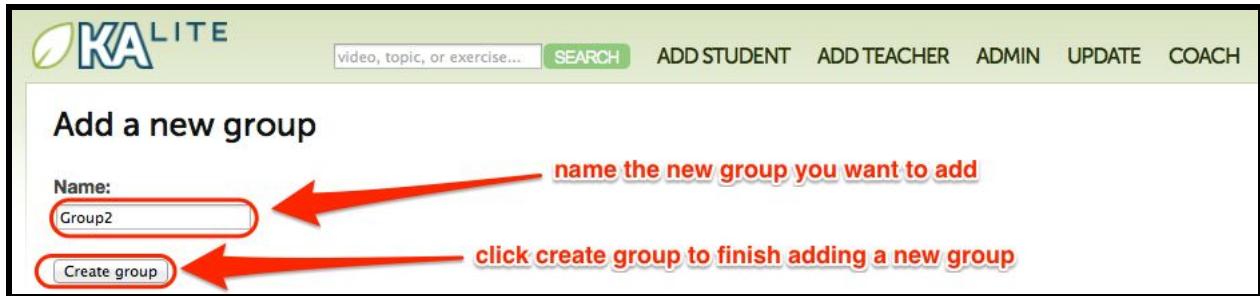


User List

Select Group to Display [\(Add a group\)](#) click to add a new group

Select (All/None)	Last Name	First Name	Username	Group
<input type="checkbox"/>	student	demo	demostudent	None
<input type="checkbox"/>	student	example	examplestudent	None
<input type="checkbox"/>	studentlastname	studentfirstname	studentusername	None
<input type="checkbox"/>	teacherlastname	teacherfirstname	teacherusername	None

4. Fill in the empty name field with the name of your new group and then click create group.



Add a new group

Name: name the new group you want to add

click create group to finish adding a new group

5. Once you have successfully created your group, you will be brought to the add a new student page. At the top where it says Group/Class, you will find the name of the new group you created.
6. If you need to create a new student user, you can fill in the information on the page.
7. If you want to add an existing user to the new group, click on the Admin link in the top navigation, click the User Management link, until you reach the user list.

Add a new student

(Group/class):

Group2

(Add a new group)

Username:

First Name:

Last Name:

Password:

Confirm password:

Create user

the new group you created shows up here

click the admin page to move existing users to the new group

only fill in new student information if you need to create a new student user account under this group

8. On the user list page, select both the user(s) you want to move and the name of the new group you want to move that user(s).

User List

Select Group to Display (Add a group)

Ungrouped

Select Action

Move Users to Group Group2 Delete Users

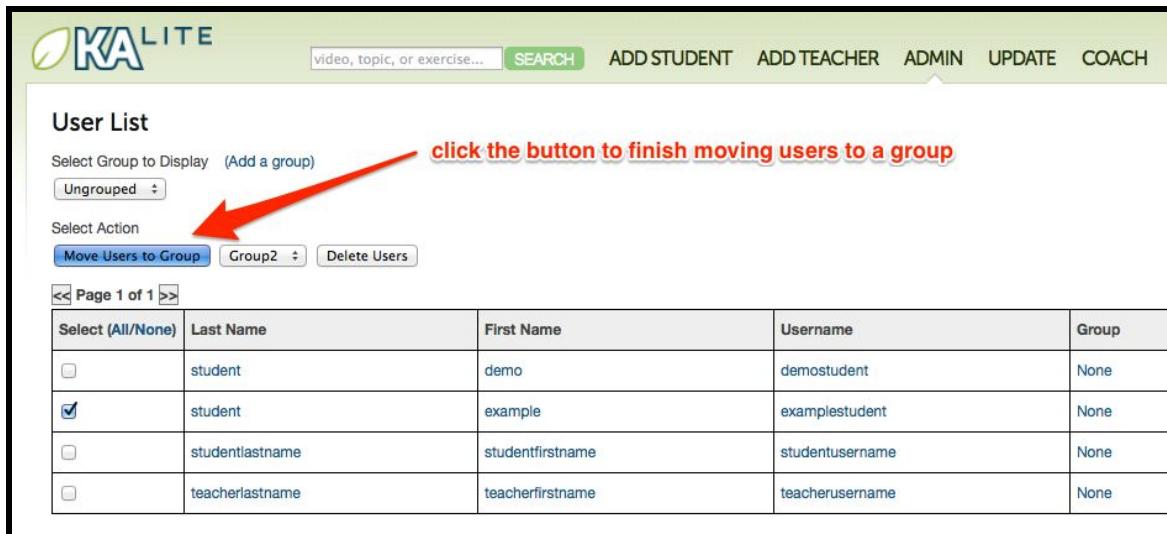
Page 1 of 1

Select (All/None)	Last Name	First Name	Username	Group
<input type="checkbox"/>	student	demo	demostudent	None
<input checked="" type="checkbox"/>	student	example	examplestudent	None
<input type="checkbox"/>	studentlastname	studentfirstname	studentusername	None
<input type="checkbox"/>	teacherlastname	teacherfirstname	teacherusername	None

select the name of the group you want to move the user to

select the user you want to move

9. Finally, Click Move Users to Group and your user(s) will be moved to the group you selected.



User List

Select Group to Display (Add a group)

Ungrouped

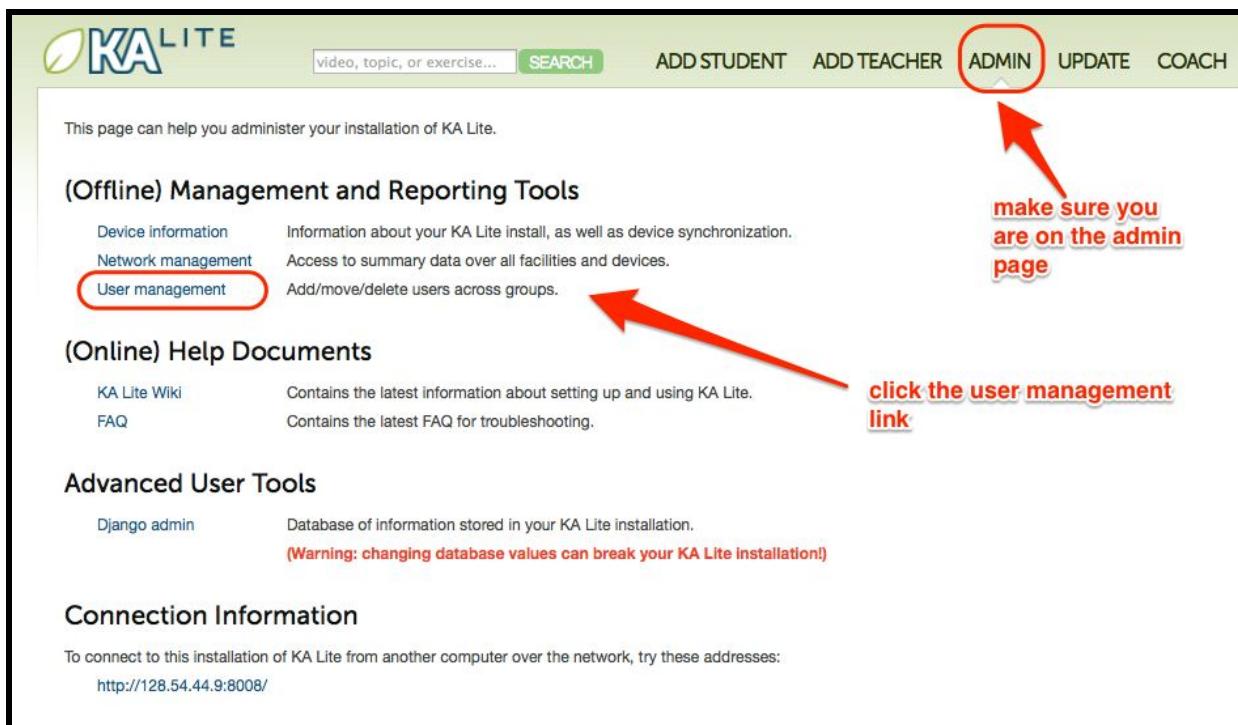
Select Action

Page 1 of 1

Select (All/None)	Last Name	First Name	Username	Group
<input type="checkbox"/>	student	demo	demostudent	None
<input checked="" type="checkbox"/>	student	example	examplestudent	None
<input type="checkbox"/>	studentlastname	studentfirstname	studentusername	None
<input type="checkbox"/>	teacherlastname	teacherfirstname	teacherusername	None

To remove users from a group:

1. Click the Admin link in the top navigation of KA Lite.
2. Click the User Management link under the section titled (Offline) Management and Reporting tools.



This page can help you administer your installation of KA Lite.

(Offline) Management and Reporting Tools

- Device information
- Information about your KA Lite install, as well as device synchronization.
- Network management
- Access to summary data over all facilities and devices.
- User management**
- Add/move/delete users across groups.

(Online) Help Documents

- KA Lite Wiki
- Contains the latest information about setting up and using KA Lite.
- FAQ
- Contains the latest FAQ for troubleshooting.

Advanced User Tools

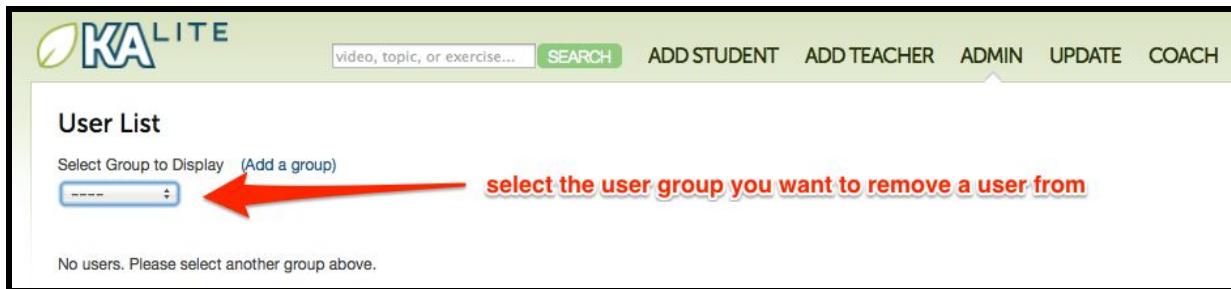
- Django admin
- Database of information stored in your KA Lite installation.
- (Warning: changing database values can break your KA Lite installation!)**

Connection Information

To connect to this installation of KA Lite from another computer over the network, try these addresses:

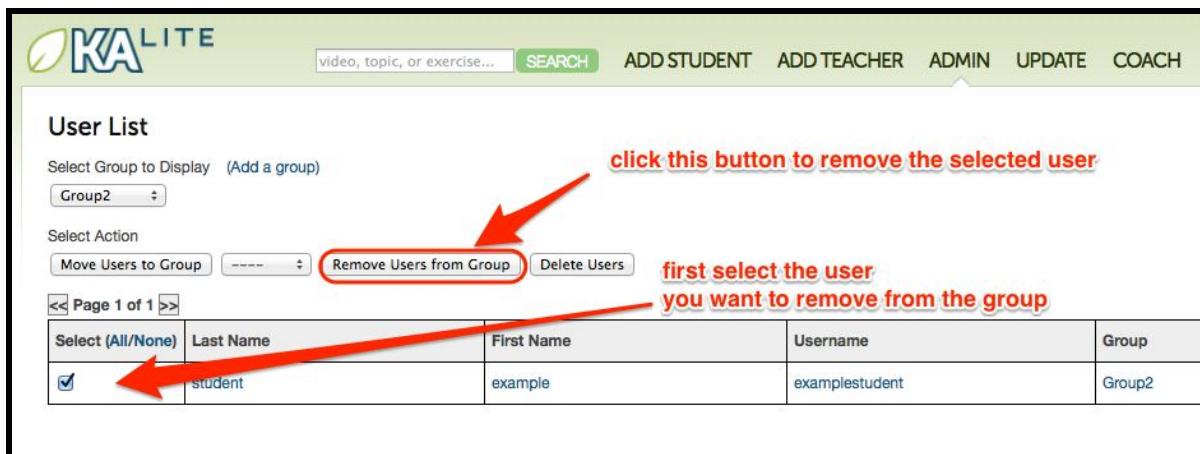
<http://128.54.44.9:8008/>

3. Select a user group to view the users in a group you want to remove from.



The screenshot shows the KA Lite User List interface. At the top, there is a search bar with the placeholder "video, topic, or exercise..." and a "SEARCH" button. Below the search bar are navigation links: ADD STUDENT, ADD TEACHER, ADMIN, UPDATE, and COACH. The main title is "User List". Below the title, there is a dropdown menu labeled "Select Group to Display" with an option "(Add a group)". A red arrow points to this dropdown with the text "select the user group you want to remove a user from". Below the dropdown, a message says "No users. Please select another group above."

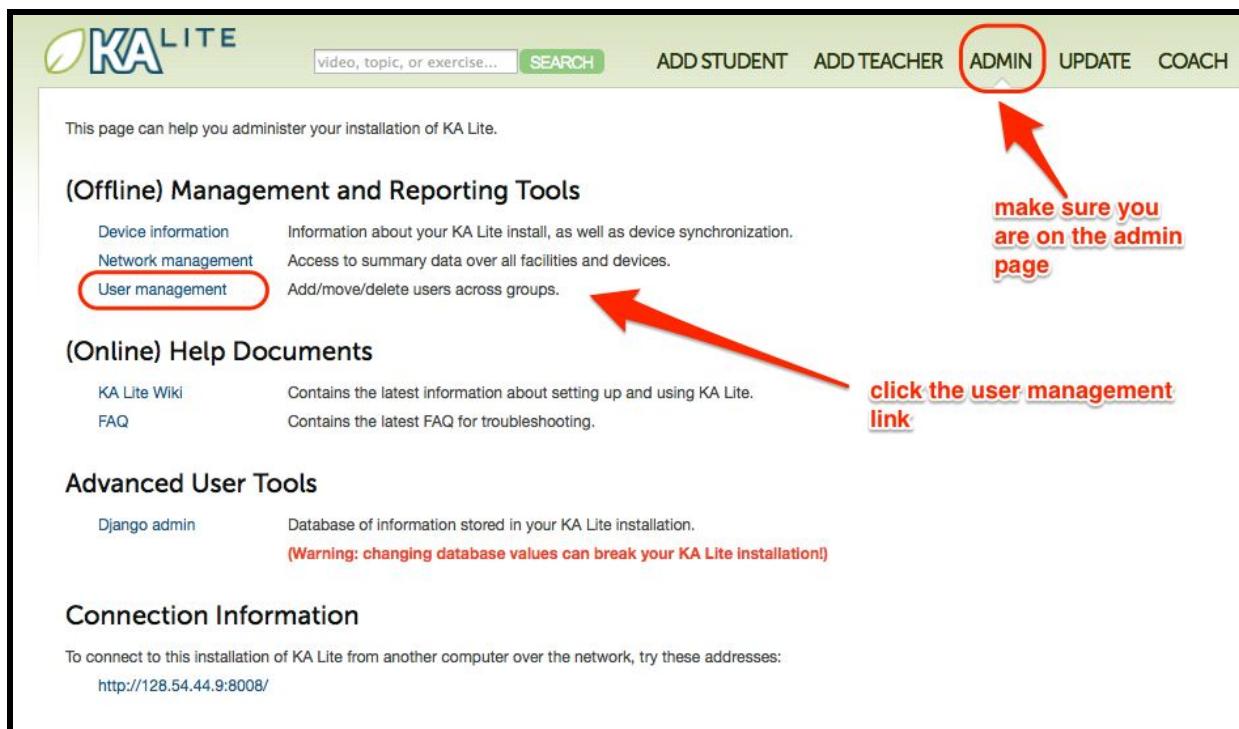
4. Select the user(s) you want to remove from that group and click Remove Users From Group to complete the action.



The screenshot shows the KA Lite User List interface. At the top, there is a search bar with the placeholder "video, topic, or exercise..." and a "SEARCH" button. Below the search bar are navigation links: ADD STUDENT, ADD TEACHER, ADMIN, UPDATE, and COACH. The main title is "User List". Below the title, there is a dropdown menu labeled "Select Group to Display" with an option "(Add a group)" and a selected option "Group2". A red arrow points to this dropdown with the text "click this button to remove the selected user". Below the dropdown, there is a "Select Action" section with buttons for "Move Users to Group", "Remove Users from Group" (which is highlighted with a red box), and "Delete Users". A red arrow points to the "Remove Users from Group" button with the text "first select the user you want to remove from the group". Below the action buttons is a table showing user data. The first row of the table has a checkbox column with a checked checkbox, a "student" entry in the Last Name column, and a "Group2" entry in the Group column. A red arrow points to the checkbox in the first row with the text "first select the user you want to remove from the group".

To permanently delete users:

1. Click the Admin link in the top navigation of KA Lite.
2. Click the User Management link under the section titled (Offline) Management and Reporting tools.



This page can help you administer your installation of KA Lite.

(Offline) Management and Reporting Tools

- Device information
- Network management
- User management**

Information about your KA Lite install, as well as device synchronization.
Access to summary data over all facilities and devices.
Add/move/delete users across groups.

(Online) Help Documents

- KA Lite Wiki
- FAQ

Contains the latest information about setting up and using KA Lite.
Contains the latest FAQ for troubleshooting.

Advanced User Tools

- Django admin

Database of information stored in your KA Lite installation.
(Warning: changing database values can break your KA Lite installation!)

Connection Information

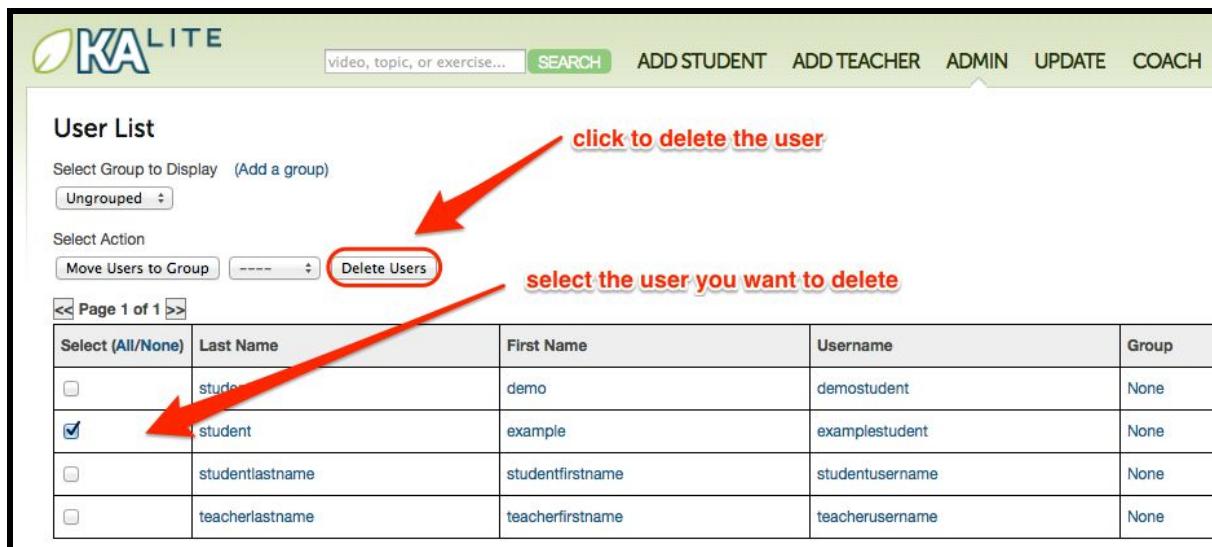
To connect to this installation of KA Lite from another computer over the network, try these addresses:
<http://128.54.44.9:8008/>

ADMIN **UPDATE** **COACH**

make sure you are on the admin page

click the user management link

3. Select the user you want to delete, and click Delete Users to permanently delete the user account.



User List

Select Group to Display (Add a group)
Ungrouped

Select Action
Move Users to Group **Delete Users**

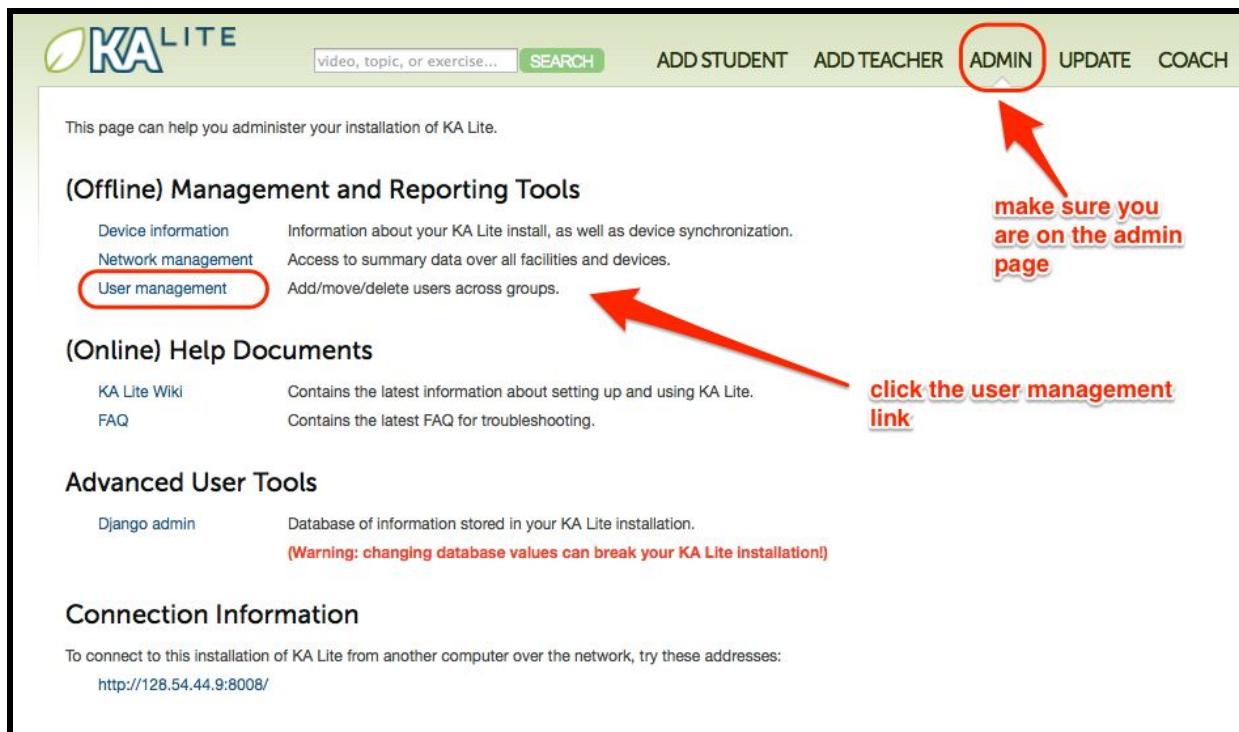
click to delete the user

select the user you want to delete

Select (All/None)	Last Name	First Name	Username	Group
<input type="checkbox"/>	student	demo	demostudent	None
<input checked="" type="checkbox"/>	student	example	examplestudent	None
<input type="checkbox"/>	studentlastname	studentfirstname	studentusername	None
<input type="checkbox"/>	teacherlastname	teacherfirstname	teacherusername	None

To edit user information:

1. Click the Admin link in the top navigation of KA Lite.
2. Click the User Management link under the section titled (Offline) Management and Reporting tools.



This page can help you administer your installation of KA Lite.

(Offline) Management and Reporting Tools

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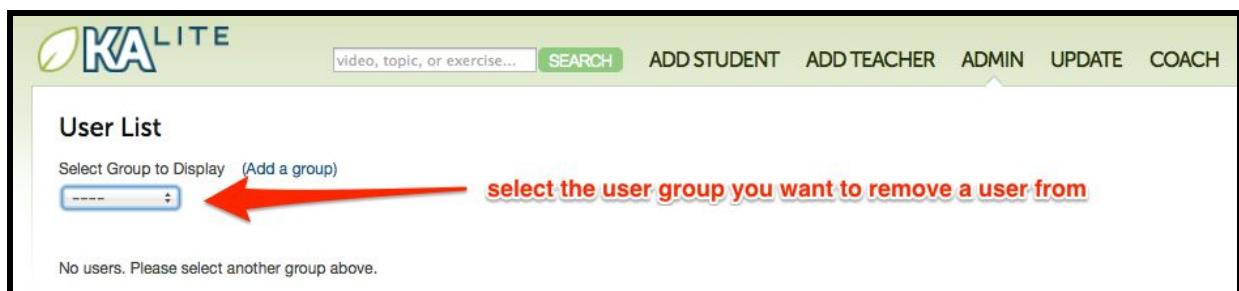
Connection Information

To connect to this installation of KA Lite from another computer over the network, try these addresses:
<http://128.54.44.9:8008/>

make sure you are on the admin page

click the user management link

3. Select a user group, to view the user list.



User List

Select Group to Display (Add a group)

No users. Please select another group above.

select the user group you want to remove a user from

4. Click on the either the last name, first name, username, or group link of the user you want to edit

User List

Select Group to Display (Add a group)

Ungrouped

Select Action

Move Users to Group | Delete Users

Page 1 of 1

Select (All/None)	Last Name	First Name	Username	Group
<input type="checkbox"/>	student	demo	demostudent	None
<input type="checkbox"/>	student	example	examplestudent	None
<input type="checkbox"/>	studentlastname	studentfirstname	studentusername	None
<input type="checkbox"/>	teacherlastname	teacherfirstname	teacherusername	None

5. Make all necessary changes on the edit user page, and click Update user.

video, topic, or exercise... SEARCH

Edit user demostudent

(Group/class):

Username: demostudent

First Name: demo

Last Name: student

Password:

Confirm password:

click to update user information

Update user

Updating KA Lite

If a new version of KA Lite comes out, you can update version 0.11.1 to the latest version by following the instructions below.

Updating on Mac OS

1. Open the "Terminal" application.
2. Navigate to your KA Lite installation:
 - a. If you are comfortable with UNIX, use the "cd" (change directory) command to move inside of your KA Lite directory (e.g. cd <path_to_kalite>/ka-lite/kalite).
 - b. If you have no clue what UNIX means:
 - i. Type "cd" into the Terminal - don't press Enter yet!
 - ii. Next: open your "Finder" application, navigate to the "kalite" folder (note that this is not the ka-lite folder [missing the dash]). Drag and drop the kalite folder right into the Terminal App. This should add a filepath to your command (so it will look like cd some/path/to/ka-lite/kalite) and press Enter. This will automatically navigate you into the right directory.
3. Run the command to update KA Lite: Into the terminal, type 'python manage.py update'

Updating on Linux

1. Inside of the KA Lite directory, run the command: python manage.py update
2. This will download the latest version of KA Lite!

Updating on Windows

1. We have created a GUI installer for Window's users that will automatically download the latest version of KA Lite and upgrade your installation to the latest version.
2. First, [download](#) the Window's Installer.
3. Run the .exe file
4. When prompted, ensure that you tell the installer to not overwrite your old database file, as this will delete all of your students' progress. Instead, tell it to use the old database file and continue.
5. This will upgrade you to the latest version of KA Lite!

Management Commands

From the command prompt, in your ka-lite/kalite directory, if you run 'python manage.py', you will see a list of management commands that give you some control over your app.

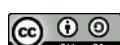
How do I run them?

From the command prompt, in your ka-lite/kalite directory, run 'python manage.py [command]',

What commands are available?

Here, we list out ALL of the available commands in three sets:

- KA Lite-related commands that we intend you to use
- KA Lite-related commands that we do not intend for you to use
- KA Lite-unrelated commands



KA Lite-related commands -- OK to use

[kalite]

update - update your version of KA Lite. Must be online or provide a zip file. (v0.9.4+)

zip_kalite - package your version of KA Lite into a zip file, to share with your friends! Includes local_settings.py, but no zone information nor data. The zip file will be stored in the kalite directory.

[main]

apacheconfig - for configuring KA Lite to run under apache (by default, configured to run under a Python-based web server)

cache - manipulate the cache

subtitledownload - force downloading and installation of specified subtitles data (v0.9.4+)

videoscan - rescan the hard drive and database, to synchronize available video information.

[securesync]

changelocalpassword [username]- reset the password for a facility user (student, coach account)

retrypurgatory - run only if you find errors in syncing

syncmodels - force models to synchronize immediately (online access required)

KA Lite-unrelated commands -- OK to use

[auth]

changepassword - reset the password for an admin account (not coach, nor student)

createsuperuser - create a new admin account (not coach, nor student)

[django]

dumpdata - save your local data to a backup (JSON format)

loaddata - load your local data from a backup (JSON format)

validate - validate your basic server installation

[south]

migrate - run in case your

KA Lite testing related commands -- DON'T use these!

[coachreports]

generatefakedata - generate exercise data for fake users

generaterealdata - generate exercise, video, and user login data for fake users

[django_cherrypy_wsgiserver]

runcherrypyserver - runs the python-based web server (run via start.sh / start.bat instead)

[main]



initdconfig -

khanload - download new topic data from Khan Academy. WARNING: may fail, and may destroy necessary KA Lite data!

videodownload - force downloading of videos selected from "update" UI

[securesync]

generatekeys -

initdevice - run once, during installation.

KA Lite-unrelated commands -- DON'T use these!

[chronograph]

cron

cron_clean

cronserver

[django]

cleanup

compilemessages

createcachetable

dbshell

diffsettings

flush

inspectdb

makemessages

reset

runfcgi

shell

sql

sqlall

sqlclear

sqlcustom

sqlflush

sqlindexes

sqlinitialdata

sqlreset

sqlsequencereset

startapp

startproject

[django_extensions]

clean_pyc

compile_pyc

create_app

create_command

create_jobs



```
describe_form
dumpscript
export_emails
find_template
generate_secret_key
graph_models
mail_debug
notes
passwd
print_settings
print_user_for_session
reset_db
runjob
runjobs
runprofileserver
runscript
runserver_plus
set_fake_emails
set_fake_passwords
shell_plus
show_templatetags
show_urls
sqlcreate
sqldiff
sync_media_s3
syncdata
unreferenced_files
update_permissions
validate_templates
```

```
[south]
convert_to_south
datamigration
graphmigrations
migrationcheck
schemamigration
startmigration
syncdb
test
testserver
```

```
[staticfiles]
collectstatic
findstatic
runserver
```

Configuration Settings



Once you have deployed KA Lite to a computer, there are a number of ways you can customize the behavior of your installation. Below, you will find a list of these possible customizations with instructions or descriptions on how to do it.

Please follow these instructions carefully! Customizing the server incorrectly can break your installation. It can be very hard to find and undo the error.

A more advanced way to customize your installation's behavior is by adding a file called "local_settings.py" in the same folder that you find the file "settings.py" (ka-lite/kalite/settings.py). Below is a list of options that you can set in local_settings.py, and what they mean.

As of version 0.9.3 (Dec, 2012):

- CONTENT_ROOT = "<path to desired content folder>" (default=ka-lite/content)
 - This is the path that KA Lite will use to look for KA Lite video files to play. Change the path to another local directory to get video files from that directory.
- TIME_ZONE = <desired time zone> (default = "America/Los_Angeles")
 - You can set this to be the local time zone for your installation. Choices can be found [here](#).
- LANGUAGE_CODE = "<desired ISO 639-1 Language Code>" (default = "en-us")
 - You can set this to the desired language code for this installation (All choices can be found [here](#)). If there are translations available, our web server will show them in KA Lite. Soon, we hope to provide support for internationalized content inside the KA Lite interface.
- USE_I18N = <True or False> (default = True)
 - If you set this to False, our web server will make some optimizations so as to avoid loading internationalization tools. Things might run a little faster, but you won't have support for translated content.
- USE_L10N = True
 - By default, this is set to False. If you set this to True, Django will format dates, numbers and calendars according to the current locale. For example, January 5, 2000 would be 1/5/2000 if locale = "en-us" and 5/1/2000 if locale = "en-gb"

New in version 0.10.0 (August 26, 2013):

- PRODUCTION_PORT = <desired port number> (default=8008)
 - This is the port that KA Lite will run on when started. Here is a [list of available ports](#).
- USER_LOG_MAX_RECORDS = <desired maximum for user log records> (default = 0)
 - When this is set to any non-zero number, we will record (and sync for online tracking) user login activity, summarized for every month (which is configurable, see below). Default is set to 0, for efficiency purposes--but if you want to record this, setting to 1 is enough! The # of records kept are not "summary" records, but raw records of every login. These "raw" data are not synced, but are kept on your local machine only--there's too many of them. Currently, we have no specific report to view these data (though we may have for v0.10.1)
- USER_LOG_SUMMARY_FREQUENCY = <desired frequency in the following format (number, amount of time)> (default = (1, "months"))
 - This determines the granularity of how we summarize and store user log data.



One database row is kept for each student, on each KA Lite installation, for the defined time period. Acceptable values are:

- (1, "months"), (2, "months"), (3, "months"), (6, "months") - separate logged data for every month, 2 months, 3 months, or 6 months, respectively
- (1, "weeks") - separate logged data for every week ** NOTE THIS MAY PRODUCE A LOT OF DATA **
- SYNC_SESSIONS_MAX_RECORDS = <desired max records of sync sessions> (default = 10)
 - Every time your installation syncs data, we record the time of the sync, the # of successful logs that were uploaded and downloaded, and any failures.
 - This setting is how many such records we keep on your local server, for display.
 - When you log in to our online server, you will see a *full* history of these records.
- CRONSERVER_FREQUENCY = <desired frequency of cronserver to run in seconds> (default = 10 minutes)
 - This is how frequently KA Lite tries to synchronize user data with other Devices on your Zone. This can be changed to sync data more often (use a smaller #), or if you're never online (can be set to a large number)
- CACHE_TIME = <desired length of cache time, in seconds> (default = 5*365*24*60*60) (that's 5 years!)
 - Our basic topic pages, video pages, and exercise pages rarely change--only when you download new videos (changes made by user logins are made in a different way). Therefore, we can "cache" copies of these pages, to avoid constantly regenerating them, and speed up KA Lite. We have logic to delete the cached copies, and therefore generate new copies, if you download new videos or delete old videos through our interface.
 - If you would like to disable caching, set CACHE_TIME = 0 .
 - Read a little more about [caching on Wikipedia](#).
- CACHE_LOCATION = '<path to cache directory>' (default= dir named kalite_web_cache in the OS temporary dir)
 - Some operating systems will clear the temporary directories when the system is rebooted. To retain the cache between reboots, an alternative location can be specified. (for example on Linix, "/var/tmp/kalite_web_cache")
- CHERRYPY_THREAD_COUNT = <number of threads> (default=50)
 - The CherryPy Webserver can handle multiple page requests simultaneously. The default is 50, but for slow or single CPU servers, performance will be improved if the number of threads is reduced. Minimum number of threads is 10, optimum setting for Raspberry Pi is 18.
- USE_MPLAYER = <True or False> (default = False)
 - With this setting, if the browser is run from the same computer as the KA Lite server, then instead of playing the video in the browser, the video will be launched outside of the browser and played in mplayer - a light-weight video player that is included with the KA Lite software.
 - This is intended for use only on the Raspberry Pi, where no other video player is available.

* If you examine settings.py you will frequently see variables set with the following syntax:



```
DEBUG = getattr(local_settings, "DEBUG", False)
```

This is essentially checking first to see if DEBUG is set in local_settings. If it is, use that, if not, set it to False. Any variable set with this syntax in settings.py can be overwritten in local_settings.py. Again, don't change anything on a live installation that you aren't sure about, but for testing purposes, feel free to experiment!

Glossary of Terms

Project Administrator

plans out the deployment and logistics, procures the devices and installs KA Lite, and oversees their delivery and integration into the classroom or community. They can also update the software, add content, customize configuration settings, and manage user accounts.

Coach (also referred to as 'facilitators' or 'teachers')

users who add, manage, and track the progress of groups of students. They have access to student progress data in the form of coach reports, and can step in and provide individualized instruction when the student needs it.

Students

users who use KA Lite primarily for learning. They earn points for watching videos and answering exercises correctly, and their progress is tracked by the system.

Mastery

enough correct answers such that a student has demonstrated that a concept has been learned sufficiently to move to the next concept. For KA Lite exercises, this means correctly answering the same exercise 10 times in a row.

Organization

An Organization is a group of people responsible for administering a set of Sharing Networks. An organization can have multiple administrators and manage multiple sharing networks.

Sharing Network

A sharing network is a group of devices that share data between one another.

Facility

A facility is the physical space in which a device is located (e.g. a school or a computer lab in a community center). Student, coach, and admin accounts are associated with a particular facility.

Device

A device should be able to run a KA Lite server (most computers) and other devices to be used as clients. One common configuration is using a [Raspberry Pi](#) or other inexpensive computer as a server and relatively cheap tablets as client devices. Tablets can access the servers through an access point, such as a Wi-Fi dongle, or some other networking device such as a router.

